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Coping with COVID-19: An exploratory mixed-methods investigation of the impact of John Henryism on urban college students' engagement in schoolwork

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Abstract

The current study examined how COVID-19 impacted urban college students' engagement in their schoolwork and whether John Henryism mediated the relationship among demographic variables and engagement. Results demonstrated that John Henryism is a significant predictor of all three engagement outcomes (absorption, dedication, and vigor) and mediated the relationship between historically underrepresented students (Black and Latinx) and their vigor for engaging in schoolwork. Three themes emerged from the qualitative analysis: intrapersonal, interpersonal, and contextual challenges. This study adds another dimension to the coping strategies urban college students are using to stay engaged in their schoolwork during the pandemic.

Practitioner Notes

1. Results demonstrated that John Henryism is a significant predictor of all three engagement outcomes (absorption, dedication, and vigor)
2. John Henryism mediated the relationship between historically underrepresented students (Black and Latinx) and their vigor for engaging in schoolwork
3. Three themes emerged from the qualitative analysis: intrapersonal, interpersonal, and contextual challenges
4. This study adds another dimension to the coping strategies urban college students are using to stay engaged in their schoolwork during the pandemic.
5. Colleges and universities need to be aware of John Henryism as a coping strategy for students.

Keywords

John Henryism, Engagement, COVID-19, Structural Equation Model

Introduction

The 2019 novel Coronavirus outbreak has had devastating impacts both nationally and internationally, with over 81 million cases and over 991,000 deaths in the United States as of May 2022 (Centers for Disease Control and Prevention, 2022). As restrictions to halt the spread of the virus were rapidly implemented in early spring of 2020, colleges and universities swiftly moved to protect the health and safety of students, faculty, and staff by shifting in-person learning to a fully virtual model (American College Health Association, 2020). The logistics alone of this pivot created stressors for students, including housing, food, finances, and new challenges at home (Lederer et al., 2021). The threat of sickness or death due to the COVID-19 pandemic (hereafter "pandemic") was amplified for underrepresented minorities with Indigenous, Black, and Pacific Islander Americans experiencing the highest pandemic death tolls (APM Research Lab, 2021). Thus, when considering the educational experiences of college students in the pandemic era, we must explore how college students, especially those attending urban colleges and universities with considerable minority populations, have coped with environmental stressors and engaged in schoolwork (Wood et al., 2022).

One significant coping strategy to consider is John Henryism. John Henryism, named after John Henry, the African American folk hero who died suddenly after beating a mechanical steam drill in an epic steel-driving contest, is defined as a behavioral predisposition for effortful, active coping in response to environmental stressors (James, 1994). John Henryism has been examined in the epidemiology literature over the last 40 years (see James (2019) for a review); however, research exploring John Henryism in an educational context is scant. Our research suggests that higher education must recognize John Henryism as a critical construct to study in the wake of the pandemic. Underrepresented and low socioeconomic status students can use John Henryism as a focused coping strategy that address environmental stress, thus achieving higher levels of self-control (Kiecolt et al., 2009; Miller et al., 2016), which is related to good psychological health (Brody et al., 2020). Refocusing psychological resources may, however, come at a cost to these most vulnerable students in the form of potential negative long-term health effects (increased allostatic load, defined as the cumulative effect of managing with long-term stress; Bryant et al., 2021). Thus, John Henryism is a paradox: high levels of John Henryism, which can lead to an increase in adaptive psychological factors, can also increase the potential of negative health outcomes. The resilience it manifests, may be only skin deep and fleeting (Brody et al., 2020). For the current study, we specifically explore the positive short-term psychological effects of how John Henryism can help college students actively cope with environmental stressors exacerbated by the pandemic and demonstrate higher levels of engagement. An analysis of longer-term health outcomes is essential future work and outside the scope of this study.

Positively linked to educational outcomes, engagement is considered the "holy grail of learning," according to Sinatra et al. (2015, p.1). But learning, in its typical in-class form, has been upended by the pandemic, with college students being forced to leave the classroom and attend school remotely. What remains to be examined is how this abrupt and significant change has impacted students' engagement in their schoolwork. The suddenness of this change in learning modality has come with a new, unexplored set of environmental stressors, which include students' specific living situations. Students have had to learn to cope with all the dimensions of change in order to stay engaged in their schoolwork. This study seeks to describe this novel context by examining the relationship among

college students' personal identity (i.e., age, race/ethnicity, gender), contextual learning factors (i.e., the extent to which their home environment is a safe space to live and learn), their engagement in schoolwork, and their use of John Henryism. The current study explored both students' engagement in their schoolwork during the pandemic and John Henryism as outcomes, with John Henryism examined as a potential mediator of the relationship among demographic variables and engagement.

Literature review and theoretical framework

The John Henryism hypothesis

James (1994) defined John Henryism as a strong behavioral predisposition to respond to environmental stress using high effort coping, which manifests as high levels of self-control (Kiecolt et al., 2009; Miller et al., 2016). That is, John Henryism provides a construct to explain the self-regulatory behavior individuals, particularly people of color, may use to cope with environmental stress (Brody et al. 2020; James 1994, 2019; and Miller et al. 2016). Although John Henryism resembles resilience (Bryant et al., 2021), it is more accurately coping *masquerading* as resilience. Bryant and colleagues (2021) quoted Brody and colleagues (2016), who described John Henryism as "efficacious mental and physical vigor, a strong commitment to hard work, and a single-minded determination to succeed" (p. 355). That is, John Henryism comprises constant self-control, motivation, and engagement needed for achievement. This constant coping in the face of environmental stress is a condition of existence for some marginalized identity groups (James, 1994). It is a condition of being alive: a non-stop state of existence, which is situational, rather than a developed trait, like resilience (Fletcher & Sarkar, 2013). For instance, in a panel discussion of conceptual definitions of resilience, Southwick et al. (2014) suggested that resilience is an adaptation to the disturbances in one's developmental system. John Henryism, however, would not be conceptualized as an adaptation. Rather, it is the employment of a high-effort coping strategy that allows an individual to persevere through adversity. Distinguishing between John Henryism and resilience—i.e., state coping vs. developmental system adaptation—offers critical nuance to the reasons why some students can overcome environmental stressors to remain actively engaged in their learning.

In his seminal paper, James (1994) explained that John Henryism, when combined with low socioeconomic resources, is detrimental to the health outcomes of African Americans. Combined with adequate or superior socioeconomic resources, however, John Henryism results in positive psychological health with no negative long-term physical health outcomes. In other words, socioeconomic resources may *buffer* the relationship between the psychological and the physical. For instance, Stanton and colleagues (2010) described that participants with high scores on the 12-item John Henryism Active Coping Scale (JHAC-12; James et al., 1987) demonstrated higher levels of conscientiousness and extraversion. These researchers align these personality profiles with a "Go-Getter" personality type (e.g., high levels of goal-directed behaviors and persistence). Individuals with higher levels of socioeconomic resources and low John Henryism, however, showed increased levels of narcissism (e.g., predisposition toward anxiety, depression, and hostility), demonstrating that John Henryism is tied to socioeconomic status and psychological health.

As conceptually defined, John Henryism is an important self-regulatory and motivational behavioral predisposition that may help individuals overcome environmental stressors. Given systemic racism and other oppressive institutions, people from historically underrepresented identity groups or with low socioeconomic resources who score high in John Henryism (Forsyth & Carter, 2014) may present as having a "Go-Getter" attitude. Their high John Henryism coupled with low SES status, however, may present as resilience that is only skin deep: while achievement-related behaviors may increase, physical health may decline. The John Henryism hypothesis thus contains a paradox (Brody et al., 2020; Hamblin, 2015): while continuous coping may be an adaptive psychological mechanism at certain points over the lifespan, it may also lead to long-term negative health outcomes. For instance, Brody and colleagues (2020) found that planful self-control in late childhood predicted future college graduation, lower levels of depressive symptoms, and antisocial behavior. However, supporting the paradox of John Henryism and skin-deep resilience, these researchers also discovered the children in the sample who spent more years growing up in poverty were more prone to metabolic syndrome and insulin reduction, two negative health outcomes associated with overcoming poverty.

Borrowed and adapted to explain academic engagement, John Henryism is emerging in the literature of developmental and educational psychology and of student success (e.g., see Jackson & Adams-Campbell, 1994; Lamb et al., 2021; Volpe et al., 2020). In our first study of the impact of John Henryism on student engagement (Torsney et al., 2022), we explored whether John Henryism mediated the relationship among demographic variables of urban college students (i.e., race, gender, first-generation student status, and their intersections) and momentary cognitive engagement and momentary positive and negative activating emotions. Findings showed that in the context of momentary engagement in a school-based task (1) John Henryism is a stable behavioral predisposition that did not differ by condition; (2) historically underrepresented college students (Black and Latinx) demonstrated significantly higher levels of John Henryism than their White counterparts; and, (3) most importantly, John Henryism mediated the relationship for first-generation female students (majority from historically underrepresented groups) on momentary cognitive engagement and positive activating emotions. In other words, John Henryism was shown to be a protective factor for first-generation female college students, largely Black and Latinx, during a brief period of psychological engagement. These findings underpin the hypothesis for the current study:

> **Hypothesis.** *That higher levels of John Henryism will keep historically underrepresented college students engaged in their schoolwork during the switch to online learning during the pandemic, by helping them overcome environmental stress and uncertainty.*

Engagement in schoolwork as an outcome

The extent to which an individual engages in their schoolwork impacts how much they can potentially learn (Sinatra et al., 2015). That is, engagement is a critical precursor to learning. Additionally, students who are better able to engage in their schoolwork may also have higher rates of well-being (Pietarinen et al., 2014; Steele & Fullagar, 2009). Having high rates of well-being is especially important during the current global pandemic when a student's inability to engage in their schoolwork may have many negative residual effects. For instance, in one study assessing college students' stress levels before and after the beginning of the pandemic, researchers found university students with significant mental health needs experienced higher stress levels related to schoolwork after the

pandemic's onset (von Keyserlingk et al., 2021). Given the need to further understand the outcomes associated with varying levels of engagement, this study is conceptually and operationally grounded in Schaufeli and Bakker's (2004) theory of work engagement. According to Schaufeli and Bakker (2004), work engagement is defined as a three-component affective, motivational, and cognitive construct that elicits:

> *a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption. Rather than a momentary and specific state, engagement refers to a more persistent and pervasive affective-cognitive state that is not focused on any particular object, event, individual, or behavior.* (p. 4)

We adapted this concept for the context of engagement in schoolwork during the pandemic because our understanding of work engagement is underpinned by a state of well-being, which occurs alongside high levels of engagement. In the context of well-being, engagement can demonstrate good psychological health, especially during a global pandemic, which has created high levels of environmental stress for many students. For this study, we shifted the setting from work to school, and posited that higher levels of John Henryism would predict higher levels of engagement.

Schaufeli and Bakker (2004) offer useful conceptual definitions for the following engagement-related terms: absorption, dedication, and vigor. First, *absorption* refers to the extent to which an individual can concentrate deeply on or is engrossed in a task. Second, *dedication* refers to the extent to which an individual is "strongly involved in one's work" (p. 5) and the level to which they are committed to their work or a task. One's dedication necessarily impacts the sense of challenge, inspiration, or enthusiasm experienced towards work or for a task. Last, *vigor* refers to the energy and effort needed to persist and successfully complete goals related work. In their definition, Schaufeli and Bakker explained that vigor includes resilience factors, such as a "willingness to invest effort in one's work" (p. 5), a precursor to action (Ajzen, 1991), and the extended effort needed to overcome adversity and persist when faced with work or a difficult task.

Through reviewing the work engagement literature, we discovered that these components of work engagement map, though not directly, onto the cognitive, behavioral, and emotional components of engagement presented by Fredricks et al. (2004). Engagement as defined by these components is commonly found in the education literature. Because engagement is a fluid concept and operational and conceptual definitions seem to overlap (Eccles & Wang, 2012), previous research has shown a strong connection between work engagement and the components of Fredricks and colleagues' engagement framework (Wong & Liem, 2021). Specifically, there is clear alignment between absorption and cognitive engagement, dedication and emotional engagement, and vigor and behavioral engagement. For instance, concentrating deeply requires cognitive effort; being dedicated to one's work requires access to emotional states such as enthusiasm, curiosity, and excitement; and being vigorous during work requires effort, even in the face of challenge or boredom (Torsney & Symonds, 2019). What is evident and most germane to the context of this study is that engagement in one's schoolwork, which depends on the physical and contextual learning space (Nolen, 2020), is a necessary precondition for learning (Sinatra et al., 2015).

What is not yet known are the myriad ways in which the pandemic has shocked and altered engagement in the educational system. As contextual changes have led to changes in teaching modality, the effect of these multiple changes on the psychology of college students must be understood. If this change has been detrimental for certain groups of students (e.g., Black, Latinx, and other underrepresented students of color; Hooper et al., 2020; Wood et al., 2022), we must understand the behavioral predispositions these students have developed to cope with, to remain engaged in, and to complete their schoolwork. We posit that as the educational context has changed, students with marginalized and intersecting-marginalized identities (Crenshaw, 1989, 1990) may rely on John Henryism as a form of effortful, active coping to remain engaged in schoolwork. This may be the case especially at urban colleges and universities, which enroll greater proportions of students of color, students who are the first in their family to attend an institution of higher education, and students who are low-income (Association of Public and Land-grant Universities, n.d.).

Current study

The purpose of this study was to construct a model to offer insight into urban college students' high effort coping and subsequent engagement as a response to the pandemic. Our process (1) analyzed the John Henryism Active Coping Scale (JHAC-12; James et al., 1987) to obtain a factor structure that more accurately assesses John Henryism in an educational context; (2) used John Henryism as an outcome measure to predict and describe students' high effort coping in remote learning during the pandemic, both quantitatively and qualitatively; and (3) established John Henryism as a mediating variable to show short-term positive effects of having high levels of effortful coping as measured by the JHAC-12 when environmental stress is high, such as the case of schooling during the pandemic. The following research questions frame the current study as they relate to the process for building our model.

> **Research question 1.** Does John Henryism factor into the self-reliance and hard work subscale established by previous studies (James, 2019; Torsney et al., 2022)?
>
> **Research question 2a.** Has the transition to online learning during the pandemic impacted college students' engagement in relation to demographic variables (gender, age, race/ethnicity), ability to get work done where they live, and John Henryism?
>
> **Research question 2b.** What are students' experiences with engaging in their schoolwork during the pandemic?
>
> **Research question 3.** Does John Henryism mediate the relationship among students' demographic variables (gender, age, race/ethnicity) and engagement in schoolwork during the pandemic?

Methods

Participants

Participants (N = 198) were identified using a convenience sample from a large urban university in the Northeastern United States. All participants were enrolled in courses within the university's college of education. The sample was 73.7% female. The mean age was 22.7, with participants ranging in age from 17 to 59. Students' academic years consisted of 9.6% freshmen, 26.8% sophomores, 17.7% juniors, 29.8% seniors, and 16.2% graduate students. Participants were most commonly White (65.2%), followed by Black (15.7%), two or more races (8.1%), Asian (5.6%), Latinx (4.0%), and Middle Eastern (1.5%).

Materials

Students completed a survey with the following sections: Demographics (gender, age, undergraduate/graduate status and year, and race/ethnicity). We included these demographic variables in our analysis, and in order to do so, we dummy coded gender (female = 1 and male = 0 or reference category) and historically underrepresented racial groups (i.e., race/ethnicity; Black and Latinx = 1, White = 0 or reference category, and all other races = missing). Coding historically underrepresented students against a White reference group was designed to echo previous research on John Henryism (see Chen et al., 2020), and allowed us to increase statistical power.

We created a single item to ask participants if they can get work done from where they live (anchored 1 [strongly disagree] to 6 [strongly agree]). This item was designed to serve as a contextual covariate that may impact students' ability to learn online.

We also adapted items from the Utrecht Work Engagement Scale (UWES; Schaufeli & Bakker, 2004; anchored 1 [almost never] to 6 [always]). That is, we replaced the word "work," which appears in the original scale, with "schoolwork." For instance, "I am enthusiastic about my work" became "I am enthusiastic about my schoolwork." The UWES also included three subscales with generally acceptable levels of reliability (Ursachi et al., 2015): absorption ($\alpha = .62$), dedication ($\alpha = .69$), and vigor ($\alpha = .73$).

We used the JHAC-12 (James et al., 1987) anchored 1 [completely false] to 5 [completely true]) to measure John Henryism. Because this scale was not designed for an education setting, we conducted an exploratory factor analysis (EFA) with a promax rotation and retained a six-factor solution ($\alpha = .76$). Sample items from the JHAC-12 that were retained included: *I don't let my personal feelings get in the way of doing a job*, and *Hard work has really helped me to get ahead in life*.

Last, we included an open-ended item to collect qualitative data that stated, "Please describe what it has been like to get schoolwork done where you live since classes became remote."

Procedure

Data were collected in the midst of the pandemic during the Fall 2020 and Spring 2021 semesters. The first author and faculty known to the first author offered participants extra credit for participating in the survey. Participants completed the survey using Google Forms, which took approximately 10 minutes to complete.

The design of the current study was an explanatory mixed methods study (QUANT → qual; Leedy & Ormrod, 2016) that used an open-ended question to supplement the quantitative findings from the survey. The purpose of this quantitative and qualitative design was to explore comprehensively John Henryism among college students during the pandemic. Following the EFA, we created a composite John Henryism variable based on the previously described six factors. The other items in the JHAC-12 were not retained either because they factored across two or more items or because they had loadings < .4 (see Table 3).

To answer the second research question, we examined college students' demographics, their ability to get schoolwork done where they live, their levels of engagement, and their levels of John Henryism. This was done both quantitatively (Research Question 2a)—through a confirmatory factor analysis (CFA) and the direct effects of a structural equation model [SEM]—and qualitatively (Research Question 2b), using the open-ended question in the survey. The SEM was conducted using MPlus version 8.3 (Muthén, & Muthén, 2017).

Qualitative data were examined using thematic analysis (Braun et al., 2015). A total of 100 students provided responses to the open-ended question, and responses were separated into unique statements for categorization by theme and sub-theme. This separation resulted in a total of 163 statements coded by the research team. The first four authors discussed all items to develop a basis for the codebook, after which the authors coded all items separately to establish inter-rater reliability (Bernard, 2006). The researchers then compared their coding results and reached consensus through discussion of any statements coded differently. The authors calculated counts by major theme (intrapersonal, interpersonal, and contextual impacts) and subcategories within themes across all statements.

To answer the third research question, we used John Henryism as a mediating variable in the SEM (see Figure 1). This allowed us to observe how John Henryism may act as a protective factor between demographic factors and students' level of engagement in their schoolwork.

Results

Quantitative results

Research Question 1. The EFA, which reduced into a three-factor structure, accounted for 48.29% of the variance. The first factor was James' (2019) previously hypothesized self-reliance and hard-work subscale. The other factors were either single or double item factors or doubled loaded on other factors. This finding demonstrated that this subscale is valid in an educational context (as also shown by Torsney et al., 2022).

Research Question 2a. Tables 1, 2, and 3 offer the descriptive statistics, correlations, and the EFA for the current study. Regarding model fit, results from the SEM demonstrated an adequate fit to the data: X^2 (126) = 181.83, p = .001, RMSEA = .05 (90% CI = .03 - .06), CFI = .93, SRMR = .05. These results can be seen in Tables 4 and 5.

Our SEM also identified multiple significant direct effects (see Table 6). First, there were significant direct effects on *absorption* from John Henryism (β = .42, p < .001) and getting work done from where a student lives (β = .22, p = .012). Second, there were significant direct effects on *dedication* from John Henryism (β = .20, p = .041) and age (β = .17, p = .034). Third, there were significant direct effects on *vigor* from John Henryism (β = .45, p < .001), identifying as a historically underrepresented student (β = -.25, p =.005), and age (β = .15 p =.049). Last, there were significant direct effects on *John Henryism* from identifying as a historically underrepresented student (β = .27, p = .012) and being able to get work done where a student lives (β = .19, p = .009). These findings indicate that during the pandemic John Henryism served as a protective factor for remaining engaged; historically underrepresented students showed lower levels of vigor than their higher social power counterparts; and, as hypothesized by James (1994), historically underrepresented students were more likely to demonstrate higher levels of John Henryism.

Research question 2b. Based on analysis of the open-ended response item, the three themes that emerged across student responses were *intrapersonal*, *interpersonal*, and *contextual* factors (see Table 8 for sub-themes and examples of responses). Intrapersonal factors represented the most common major theme (n = 79; 48%), followed by contextual factors (n = 69; 42%), and interpersonal factors (n = 15; 9%).

Intrapersonal factors were defined as psychological changes that impacted students during the pandemic (e.g., lower levels of engagement and motivation and higher rates of anxiety). The sub-themes occurring with the greatest frequency within intrapersonal factors included *feelings of discontent* (including burnout and depression; n = 18; 11%), *reduced motivation* (n = 18; 11%), *reduced engagement* (n = 13; 8%), and *feelings of content* (including acclimation/adjustment; n = 12; 7%). John Henryism was represented in six responses (4%), from a majority of female students (n = 5), with half the students being non-White (n = 3). Two students shared that they coped with reduced motivation using John Henryism. The first said, “During the beginning of the semester I was totally fine with online learning but as it continued, my motivation to get work done has depleted significantly because there are so many distractions at home. It’s been quite stressful and upsetting but I just gotta pull through.” Another student expressed, “Honestly, I feel less motivated to do it. When I do, I still try my best, but most of the time I’m just questioning why I’m even doing it.”

Contextual factors were defined as the general contextual changes felt by students as a result of the pandemic (e.g., changes in workspace or living conditions). Within contextual factors, students most frequently reported negative effects of learning in a chaotic environment (n = 19; 12%), a negative change in their school workload (n = 10; 6%), positive effects of learning in a peaceful environment (n = 9; 6%), and negative effects of the change in teaching modality (n = 8; 5%). Differences in home environments were evident across students, such as two students who expressed the challenges of working at home as, (1) “It is a struggle, I live in an apartment building so I hear a lot of voices and music throughout the day. I had a lot of WIFI struggles as well,” and (2) “It's difficult for me to

concentrate since I live in a busy house." In contrast, students who experienced a peaceful home environment to complete work said things like, "I am fortunate enough to live at home with just my mom and dad. I have quiet spaces to get work done."

Interpersonal factors referred to changes in interpersonal relations between students and their peers and between students and their professors. Common responses addressing interpersonal impacts included *reduced peer interactions and related effects* (n = 6; 4%) and *reduced interactions with professors and related effects* (n = 4; 2%). Regarding the effects of fewer interpersonal experiences, one student said, "It is very difficult to become enthused. I really miss the personal interaction with classmates and professors. It is a very impersonal experience now."

Research Question 3. Our last research question focused on the impact of John Henryism as a protective factor among our demographic groups (see Table 7). Our findings indicated that John Henryism mediated the relationship between (1) absorption ($\beta = .08$, $p = .034$) and students being able to get work done where they live; (2) vigor ($\beta = .09$, $p = .020$) and students being able to get work done where they live; and (3) vigor ($\beta = .12$, $p = .045$) and identifying as a historically underrepresented student. These findings suggest that John Henryism acted as a protective factor for students who can get work done where they live, but more importantly, acted as a protective factor for historically underrepresented students and their vigor.

Discussion

Summary of findings

For each of our three research questions, we discovered potential factors that point to how urban college students are engaging in learning since the onset of the pandemic. For research question one, we discovered that the JHAC-12 reduced into the self-reliance and hard work subscale, as predicted based on previous research (James, 2019; Torsney et al., 2022). This finding is particularly critical because this subscale of the JHAC-12 now has been validated in multiple studies, across engagement as different units of analysis (i.e., momentarily and in more general terms; Sinatra et al., 2015).

For research question two, we found both quantitatively and qualitatively that moving from in-person instruction to an online teaching environment had a mostly negative impact on students' engagement, when John Henryism was not accounted for. However, John Henryism was shown to be a protective factor for engagement, as it was shown as the only variable that positively predicted all three engagement outcomes (absorption, vigor, and dedication; Research Question 2a). Qualitatively (Research Question 2b), there was a similar finding in that a majority of students' responses addressing intrapersonal factors were found to be negative, except those referencing John Henryism. This suggests that John Henryism is indeed a protective factor, enabling students to persevere in the wake of challenging circumstances. Researchers have emphasized the need for qualitative research to address the phenomenology of engagement (Finn & Zimmer, 2012; Fredricks et al., 2004; Symonds & Hargreaves, 2016), and findings from this study deepen our understanding of students' engagement within the context of the pandemic.

Last, John Henryism was shown to be a significant mediator between (1) *absorption* and students being able to get work done where they live; (2) *vigor* and students being able to get work done where they live; and (3) *vigor* and identifying as a historically underrepresented student. These findings suggest that John Henryism may be a factor relating to good psychological health (James, 2019) and can positively impact historically underrepresented college students' motivation and effort in their schoolwork during the pandemic. On a related note, Torsney et al. (2022) previously discovered that first-generation female college students who showed higher levels of John Henryism on a school-based task had stronger cognitive and affective engagement than their peers. Collectively, these data indicate that John Henryism can serve as a coping tool for students of low social power, but further discussion of the complexity of employing John Henryism in this way is warranted.

Scholarly significance

As outlined above, research studying John Henryism in educational contexts is limited. Most research studying coping in educational contexts is focused on weathering (accelerated biological aging due to constant coping with environmental stress; Bryant et al., 2021; Geronimus et al., 2010), grit (Duckworth et al., 2007) or buoyancy (Martin et al., 2010). These constructs have value in predicting achievement-related outcomes (e.g., engagement in schoolwork); however, they offer limited insight into complex and paradoxical phenomena. John Henryism—with its focus on effortful, active coping during periods of environmental stress that leads to good psychological health, but with potentially negative longer term health outcomes—can fill this gap. As shown in this study, John Henryism is especially relevant in an educational context for historically underrepresented minorities, where John Henryism acted as a protective factor for engagement during the pandemic. University leaders would do well to understand the ramifications of John Henryism in urban universities.

Implications for urban higher education

The pandemic changed the landscape of higher education, with both short-term and yet unknown long-term effects. The results of this study can inform higher education instruction and support for students at urban colleges and universities both regarding virtual learning and more broadly when considering student engagement and well-being. Engagement, the "holy grail of learning" (Sinatra et al., 2015, p.1), can easily be impacted by environmental stress. John Henryism serves as a coping response to environmental stress that leads to high levels of short-term self-regulation and self-control resulting in sustained engagement. Additional research is required to understand corresponding long-term effects.

The present findings indicate that John Henryism serves as a protective factor for historically underrepresented college students to remain engaged in their schoolwork, but the question remains: at what cost? The contradiction at the core of John Henryism is that while effortful, active coping may enable people to overcome adversity and climb the ladder to success, it may take a toll on individuals' physical health later in life, especially for those students from historically underrepresented groups with limited socioeconomic resources (James, 1994, 2019). In fact, researchers have hypothesized that resilience, particularly for students of historically underrepresented, may only be only skin deep (Brody et al., 2020; Miller et al., 2016). That is, the current way colleges and universities are perceiving resilience as a predictor of success in the face of adversity may be masking unseen harm. Considering John Henryism as a paradoxical construct instead of resilience may offer a path for urban

colleges and universities to reconceptualize their expectations of their students, especially historically underrepresented students of color. For instance, if colleges and universities continue to reinforce the idea of resilience as an individual trait, they might be reinforcing negative neoliberal ideologies (e.g., "pull yourself up by your bootstraps") that are psychologically and physically dangerous to the student (Adams et al., 2019). Rather, recognizing the paradoxical nature of theories such as John Henryism may be a more genuinely inclusive and a just route forward.

Recommendations for practice

We offer three major recommendation for practice in urban higher education that merit further attention. First, we consider it critical that colleges and universities remain attuned to how historically underrepresented students (in this case, Black and Latinx students) are staying engaged in their schoolwork. That is, if engagement is being mediated through John Henryism, then intervention will need to be created and scheduled with implementation and follow up to buffer that high-effort coping. While students may appear to display good psychological health currently, they may be at greater risk for detrimental physical health effects in the future (Brody et al., 2020; James, 2014, 2019). Thus, higher education administrators, faculty, and staff cannot assume that students with historically underrepresented identities who are performing well in college do not need additional assistance—specifically social-emotional, psychological, and economic support—to lessen their burden. The responsibility lies with the university, college, and academic program to support these students. Taking responsibility to care for students affected by the pandemic is especially critical for urban colleges and universities that are and will be asked in the future to support more students of color (Association of Public and Land-grant Universities, n.d.). Furthermore, should students *have* to employ John Henryism to remain engaged in school and be academically successful? Is that not also a burden? To raise the specter of folk hero John Henry, what if he had been supported as he challenged the steam drill? We will never know, but he may have been able to succeed, without the premature loss of his life, and mentored others to success.

Second, even before the pandemic, colleges and universities were increasing their virtual course offerings (Palvia et al., 2018). However, something seemingly too infrequently addressed with students and among colleges and universities is *how* effectively students can complete assignments where they live. Students, especially those from lower socioeconomic backgrounds, may lack appropriate places to study and tools, including basic internet, to complete online work (Moeller et al., 2022). These issues, along with food insecurity and a lack of safe housing and neighborhoods, are environmental stressors. Thus, colleges and universities must consider how to support students in learning when a distraction-free, safe, and comfortable environment for study is not feasible. This support must be addressed with care, given the relevance and sensitivity associated with socioeconomic status and other personal factors impacting urban college students' obligations and home environments (Association of Public and Land-grant Universities, n.d.). For instance, many students in this study cited factors negatively impacting their ability to get work done, such as childcare, jobs, and crowded living spaces, home environments not conducive for engaging in learning. Colleges and universities must be hyper aware of these factors, which may require flexibility in their approach to grading, taking courses pass/fail, or offering incomplete grade status for extended periods of time. Such flexibility will require collaboration with Financial Aid and Registrars' Offices. Instructors, advisors, and other staff should

take time to reach out to students to check on their well-being, including those seemingly excelling in their coursework.

The final recommendation for higher education relates to the interconnectedness of the three themes that emerged from students' responses: context, intrapersonal factors, and interpersonal factors. Each factor can present challenges on its own, but exploring them in isolation will likely be less impactful. Thus, based on the demographic characteristics of the student body urban colleges and universities serve, consideration should be given to a three-pronged approach for student engagement: (1) to support students' psychological health (*intrapersonal*); (2) to encourage students' relationships (*interpersonal*); and (3) to enable students to control for prohibitive environmental factors (*context*). Numerous calls have been made to place more emphasis on supporting students' mental health while at college or university, particularly during the pandemic (Liu et al., 2020; Salimi et al., 2021; Zhai & Du, 2020). Institutions of higher education must also pay attention to how interpersonal factors and context contribute to mental health. Reinforcing and reiterating the necessity of interpersonal support, engagement and relationships with classmates and professors, both in the classroom and in social and extracurricular activities, are critically important (Lederer et al., 2021; Peltier et al., 2000). For example, some advisors may need to shift from prescriptive mandated advising to strategic check-ins as opportunities to support not only students' academic success, but also their interpersonal engagement in college life. Instructors can integrate high impact practices and other opportunities during and outside of class for students to interact, making connections between class content and their own lives and experiences.

How students behave in a particular context is tied to both how they think and feel (*intrapersonal)* and how they engage with others (*interpersonal*). In providing support for students' ability to get work done where they live, professionals in higher education should also explicitly address relevant intrapersonal and interpersonal factors at an individualized level. For example, older students (e.g., juniors and seniors, returning students, and veterans of the armed forces) in particular academic programs could serve as mentors for younger students (e.g., first-year and sophomores) as they adjust to their new home environment and school context. An increased emphasis on mentoring, especially mentors who share a similar identity (Hurd et al., 2012), could be beneficial, both during and after the pandemic, for first-generation, low-income, or historically underrepresented students who attend urban colleges and universities. This may especially be true for the students who transitioned from high school to college during the pandemic. These students may benefit from mentoring on how to conduct themselves in a college classroom, how to approach schoolwork, and how to interact with peers and professors. Without mentoring, these students may become overly reliant on John Henryism to overcome the stress of the pandemic and of the transition to a new learning environment.

Limitations and future directions

Despite the significant findings, there are several limitations to consider when interpreting the results. First, the sample was heavily represented by White female students. This is a function of convenience sampling, as well as a function of the university where the sample was collected. Because of this limitation, we have framed this study as exploratory in nature. However, our findings *do* follow the core tenet of James's (1994, 2019) John Henryism hypothesis: historically underrepresented students (i.e., Black and Latinx) will demonstrate higher levels of John Henryism when environmental stress

(e.g., responding psychologically to a global pandemic) is high. Replication studies should purposely sample or over-sample for racial/ethnic minorities and seek equal distribution by gender. Second, having a sample that was heavily White and female is a function of sampling from a single location, and future studies should use multiple locations. It is possible that students in colleges in the South, Pacific Northwest, Midwest, or the Southwest, for example, may have had vastly different experiences with online learning during the pandemic. Last, this study also included a supplementary qualitative element. In-depth interviews, leading to a phenomenological study or some other qualitative analysis, with people who expressed relying on John Henryism to stay motivated during the switch to online learning could be helpful when offering detail on how the pandemic has affected students.

Future research

Future research should include development and implementation of an intervention or training course to promote conscious use of John Henryism in urban colleges and universities. As evidenced in students' qualitative responses, awareness of one's John Henryism was not necessarily explicit. Making it so may be able to increase students' engagement and motivation, along with the knowledge that relying on John Henryism over long periods of time, minus social support, can be detrimental to their health. Second, future studies could use more objective engagement measures, such as a score for active participation in synchronous online classes. Even though we were able to validate the self-reliance and hard work subscale of the JHAC-12 through self-reported engagement, more objective measures could allow us to control for potential bias with the self-report measures. Last, future research could explore the use of countermeasures to help negate the long-term effects of John Henryism. That is, studies should include units of analyses that include university-level programs and policies created to relieve some of the psychological and physical impact of relying on John Henryism. Studying John Henryism at any level within the context of higher education—urban, suburban, or rural or at the community college as well as the four-year college/university—is currently in short supply.

Conclusion

This study has effectively shown that successful engagement during the pandemic has been, in one respect, a result of high effort coping, or John Henryism. The results showed that John Henryism is a significant predictor of all three engagement outcomes (absorption, dedication, and vigor) and mediated the relationship between urban college students who identify as having a historically underrepresented identity and their vigor for engaging in schoolwork during the pandemic. In sum, these findings show that for college students attending an urban university completing college coursework during a global pandemic is extremely difficult. Success required students to rely on certain psychological factors to cope with unpredictable environmental stressors. While the field has already begun to address and will continue to map environmental stressors created by the pandemic, exploration of the effect of a coping strategy like John Henryism, which was designed to assess how people respond to complex and systematic environmental stress, demonstrates a unique approach to both understanding and supporting college students now and in the future.

References

Adams, G., Estrada-Villalta, S., Sullivan, D., & Markus, H. R. (2019). The psychology of neoliberalism and the neoliberalism of psychology. *Journal of Social Issues*, *75*(1), 189-216. https://doi.org/10.1111/josi.12305

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179-211. https://doi.org/10.1016/0749-5978(91)90020-t

American College Health Association. (2020). *ACHA guidelines: Considerations for reopening institutions of higher education in the COVID-19 era*. https://acha-test.app.box.com/s/k202537ahi3w27b0w6cdhqxynr3vljif

APM Research Lab Staff. (2021, March 5). *The color of coronavirus: COVID-19 deaths by race and ethnicity in the U.S.* APM Research Lab. https://www.apmresearchlab.org/covid/deaths-by-race

Association of Public and Land-grant Universities. (n.d.). Why Public Urban Research Universities?. Retrieved June 16, 2021 from https://www.aplu.org/members/commissions/urban-serving-universities/why.html

Bernard, H. R. (2006). *Research methods in anthropology: Qualitative and quantitative approache*s (4th ed.). Altamira Press.

Braun, V., Clarke, V., & Hayfield, N. (2015). Thematic analysis. In Smith (Eds.), *Qualitative psychology: A practical guide to research methods* (pp. 222- 248). SAGE.

Brody, G. H., Yu, T., & Beach, S. R. (2016). Resilience to adversity and the early origins of disease. *Development and Psychopathology*, 28, 1347–1365. https://doi.org/10.1017/S0954579416000894

Brody, G. H., Yu, T., Chen, E., & Miller, G. E. (2020). Persistence of skin-deep resilience in African American adults. *Health Psychology, 39*(10), 921-926. https://doi.org/10.1037/hea0000945

Bryant, C. M., Anderson, L. A., & Notice. M. R. (2021). Revisioning the Concept of Resilience: Its Manifestation and Impact on Black Americans. *Contemporary Family Therapy, 44*(1), 16-28. https://doi.org/10.1007/s10591-021-09621-6

Centers for Disease Control and Prevention. (2022, May 2). *COVID data tracker.* https://covid.cdc.gov/covid-data-tracker/#datatracker-home

Chen, E., Yu, T., Siliezar, R., Drage, J. N., Dezil, J., Miller, G. E., & Brody, G. H. (2020). Evidence for skin-deep resilience using a co-twin control design: Effects on low-grade inflammation in a longitudinal study of youth. *Brain, Behavior, and Immunity*, *88*, 661-667. https://doi.org/10.1016/j.bbi.2020.04.070.

Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum, 1989*(1). 139-167.

Crenshaw, K. (1990). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review, 43*(6), 1241-1299. https://doi.org/10.2307/1229039

Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: perseverance and passion for long-term goals. *Journal of Personality and Social Psychology, 92*(6), 1087. https://doi.org/ 10.1037/0022-3514.92.6.1087

Eccles, J., & Wang, M. T. (2012). Part I commentary: So what is student engagement anyway? In *Handbook of research on student engagement* (pp. 133-145). Springer.

Finn, J. D., & Zimmer, K. S. (2012). Student engagement: What is it? Why does it matter? In *Handbook of research on student engagement* (pp. 97-131). Springer.

Fletcher, D., & Sarkar, M. (2013). Psychological resilience: A review and critique of definitions, concepts, and theory. *European Psychologist, 18*(1)*,* 12-23. https://10.1027/1016-9040/a000124

Forsyth, J. M., & Carter, R. T. (2014). Development and preliminary validation of the Racism-Related Coping Scale. *Psychological Trauma: Theory, Research, Practice, and Policy, 6*(6), 632–643. https://doi.org/10.1037/a0036702

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research, 74*(1), 59-109. https://doi.org/10.3102/00346543074001059

Hooper, M. W., Nápoles, A. M., & Peréz-Stable, E. J. (2020). COVID-19 and racial/ethnic disparities. *JAMA, 23*(24), 2466–2467. https://doi.org/10.1001/jama.2020.8598

Geronimus, A. T., Hicken, M. T., Pearson, J. A., Seashols, S. J., Brown, K. L., & Cruz, T. D. (2010). Do US black women experience stress-related accelerated biological aging?. *Human Nature, 21*(1), 19-38. https://doi.org/10.1007/s12110-010-9078-0

Hamblin, J. (2015). The paradox of effort: a medical case against too much self-control. *The Atlantic*.

Hurd, N. M., Sánchez, B., Zimmerman, M. A., & Caldwell, C. H. (2012). Natural mentors, racial identity, and educational attainment among African American adolescents: Exploring pathways to success. *Child Development, 83*(4), 1196-1212. https://doi.org/ 10.1111/j.1467-8624.2012.01769.x

Jackson, L. A., & Adams-Campbell, L. L. (1994). John Henryism and blood pressure in black college students. *Journal of Behavioral Medicine, 17*(1), 69-79. https://doi.org/ 10.1007/BF01856883

James, S. A. (1994). John Henryism and the health of African Americans. *Culture, Medicine, and Psychiatry, 18*(2), 163-182. https://doi.org/10.1007/bf01379448

James, S. A. (2019). John Henryism, structural racism, and cardiovascular health risks in African Americans. In C. L. Ford, D. M. Griffith, M. A. Bruce, & K. Gilbert (Eds.), *Racism: Science & tools for the public health professional* (pp.171-189). American Public Health Association Press.

James, S. A., Strogatz, D. S., Wing, S. B., & Ramsey, D. L. (1987). Socioeconomic status, John Henryism, and hypertension in blacks and whites. *American Journal of Epidemiology, 126*(4), 664-673. https://doi.org/10.1093/oxfordjournals.aje.a114706

John, O. P. (1990). The "Big Five" factor taxonomy: Dimensions of personality in the natural languages and in questionnaires. In L. A. Pervin (Ed.), *Handbook of personality: Theory and research* (pp. 66–100). Guilford Press.

Kiecolt, K. J., Hughes, M., & Keith, V. M. (2009). Can a high sense of control and John Henryism be bad for mental health?. *The Sociological Quarterly, 50*(4), 693-714. https://doi.org/10.1111/j.1533-8525.2009.01152.x

Lamb, R., Hoston, D., Lin, J., & Firestone, J. (2021). Psychological allostatic load: The cost of persistence in STEM disciplines. *Research in Science Education,* 1-20. https://doi.org/10.1007/s11165-021-10000-2

Lederer, A. M., Hoban, M. T., Lipson, S. K., Zhou, S., & Eisenberg, D. (2021). More than inconvenienced: The unique needs of U.S. college students during the COVID-19 pandemic. *Health Education & Behavior, 48*(1), 14–19. https://doi.org/10.1177/1090198120969372

Leedy, P. D., & Ormrod, J. E. (2016). *Practical research: Planning and design* (12th ed.). Merrill Prentice Hall.

Liu, C. H., Pinder-Amaker, S., Hahm, H., & Chen, J. A. (2020). Priorities for addressing the impact of the COVID-19 pandemic on college student mental health. *Journal of American College Health,* 1–3. https://doi.org/10.1080/07448481.2020.1803882

Martin, A. J., Colmar, S. H., Davey, L. A., & Marsh, H. W. (2010). Longitudinal modelling of academic buoyancy and motivation: Do the 5Cs hold up over time?. *British Journal of Educational Psychology, 80*(3), 473-496. https://doi.org/ :10.1348/000709910X486376

Miller, G. E., Cohen, S., Janicki-Deverts, D., Brody, G. H., & Chen, E. (2016). Viral challenge reveals further evidence of skin-deep resilience in African Americans from disadvantaged backgrounds. *Health Psychology, 35*(11), 1225. https://doi.org/ 10.1037/hea0000398

Moeller, J., von Keyserlingk, L., Spengler, M., Gaspard, H., Lee, H. R., Yamaguchi-Pedroza, K., ... & Arum, R. (2022). Risk and protective factors of college students' psychological well-being during the COVID-19 pandemic: emotional stability, mental health, and household resources. *AERA Open*, 8, 23328584211065725.

Muthén, L. K. and Muthén, B. O. (1998-2017). *Mplus user's guide* (8th ed.). Muthén & Muthén.

Nolen, S. B. (2020). A situative turn in the conversation on motivation theories. *Contemporary Educational Psychology*, *61*, 101866. https://doi.org/10.1016/j.cedpsych.2020.101866

Palvia, S., Aeron, P., Gupta, P., Mahapatra, D., Parida, R., Rosner, R., & Sindhi, S. (2018). Online education: Worldwide status, challenges, trends, and implications. *Journal of Global Information Technology Management, 21*(4), 233–241. https://doi.org/10.1080/1097198x.2018.1542262

Peltier, G. L., Laden, R., & Matranga, M. (2000). Student persistence in college: A review of research. *Journal of College Student Retention, 1*(4), 357-375. https://doi.org/10.2190/l4f7-4ef5-g2f1-y8r3

Pietarinen, J., Soini, T., & Pyhältö, K. (2014). Students' emotional and cognitive engagement as the determinants of well-being and achievement in school. *International Journal of Educational Research, 67,* 40–51. https://doi.org/10.1016/j.ijer.2014.05.001

Salimi, N., Gere, B., Talley, W., & Irioogbe, B. (2021). College students mental health challenges: Concerns and considerations in the COVID-19 pandemic. *Journal of College Student Psychotherapy,* 1–13. https://doi.org/10.1080/87568225.2021.1890298

Schaufeli, W., & Bakker, A. (2004). *Utrecht work engagement scale: Preliminary manual.* Occupational Health Psychology Unit, Utrecht University.

Sinatra, G. M., Heddy, B. C., & Lombardi, D. (2015). The challenges of defining and measuring student engagement in science. *Educational Psychologist, 50*(1), 1–13. https://doi.org/10.1080/00461520.2014.1002924.

Southwick, S. M., Bonanno, G. A., Masten, A. S., Panter-Brick, C., & Yehuda, R. (2014). Resilience definitions, theory, and challenges: interdisciplinary perspectives. *European Journal of Psychotraumatology, 5*(1), 25338. https://doi.org/10.3402/ejpt.v5.25338

Stanton, M. V., Jonassaint, C. R., Williams, R. B., & James, S. A. (2010). Socioeconomic status moderates the association between John Henryism and NEO PI-R personality domains. *Psychosomatic Medicine, 72*(2), 141. https://doi.org/10.1097/psy.0b013e3181cdc00e

Steele, J. P., & Fullagar, C. J. (2009). Facilitators and outcomes of student engagement in a college setting. *The Journal of Psychology, 143*(1), 5–27. https://doi.org/10.3200/jrlp.143.1.5-27

Symonds J., & Hargreaves L. (2016). Emotional and motivational engagement at school transition: A qualitative stage-environment fit study. *The Journal of Early Adolescence, 36*(1), 54-85. https://doi.org/10.1177/0272431614556348

Torsney, B. M., & Symonds, J. E. (2019). The professional student program for educational resilience: Enhancing momentary engagement in classwork. *The Journal of Educational Research*, *112*(6), 676-692. https://doi.org/10.1080/00220671.2019.1687414

Torsney, B. M., Symonds, J. E., Lombardi, D., Burke K. M., Torsney, C. B., James, S. A. (2022). *Emergence of College Students' John Henryism during Schoolwork* [Manuscript submitted for publication]. Policy, Organization, and Leadership Studies, Temple University.

Ursachi, G., Horodnic, I. A., & Zait, A. (2015). How reliable are measurement scales? External factors with indirect influence on reliability estimators. *Procedia Economics and Finance, 20,* 679-686. https://doi.org/10.1016/s2212-5671(15)00123-9

Volpe, V. V., Rahal, D., Holmes, M., & Zelaya Rivera, S. (2020). Is hard work and high effort always healthy for Black college students? John Henryism in the face of racial discrimination. *Emerging Adulthood, 8*(3), 245-252. https://doi. org/10.1177/2167696818804936

von Keyserlingk, L., Yamaguchi-Pedroza, K., Arum, R., & Eccles, J. S. (2021). Stress of university students before and after campus closure in response to COVID-19. *Journal of Community Psychology*, 1-17. https://doi.org/10.1002/jcop.22561

Wong, Z. Y., & Liem, G. A. D. (2021). Student engagement: Current state of the construct, conceptual refinement, and future research directions. *Educational Psychology Review*, 1-32. https://doi.org/ 10.1007/s10648-021-09628-3

Wood, C. I., Yu, Z., Sealy, D. A., Moss, I., Zigbuo-Wenzler, E., McFadden, C., ... & Brace, A. M. (2022). Mental health impacts of the COVID-19 pandemic on college students. *Journal of American College Health*, 1-6. https://doi.org/ 10.1080/07448481.2022.2040515

Zhai, Y., & Du, X. (2020). Addressing collegiate mental health amid COVID-19 pandemic. *Psychiatry Research, 288,* 113003. https://doi.org/10.1016/j.psychres.2020.113003

Appendix

Figure 1

SEM

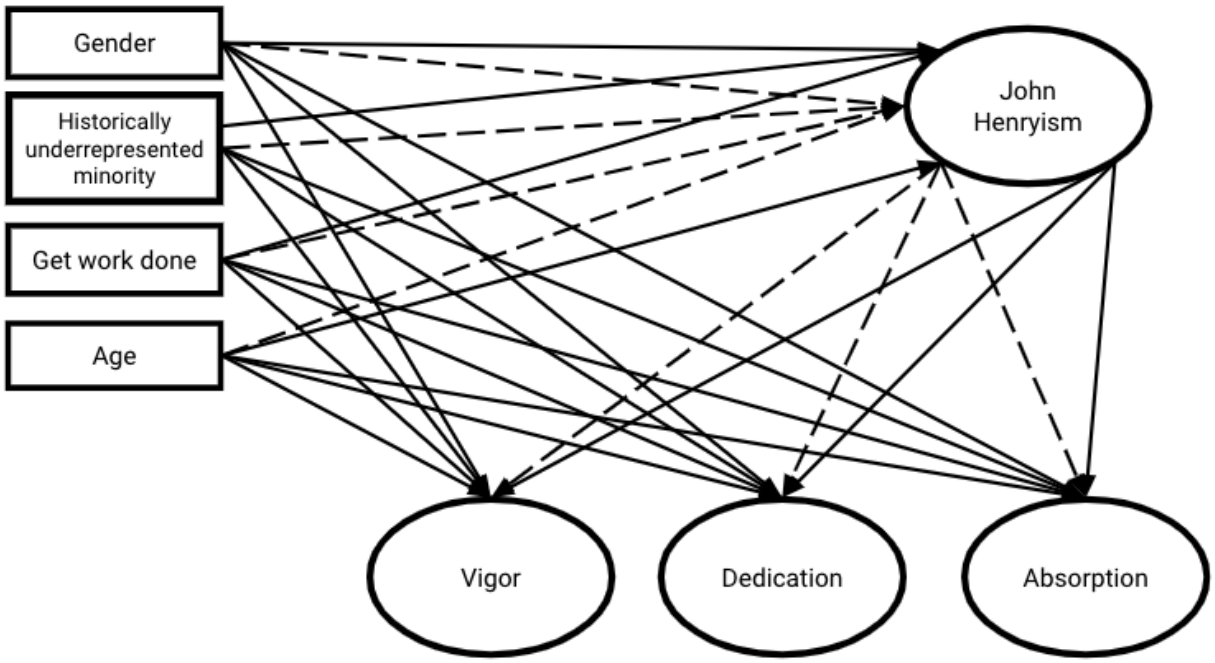

Table 1

Descriptive Statistics for Latent Variables

Variable	Mean	SD	α
Vigor	2.47	.80	.73
Dedication	3.25	.85	.69
Absorption	3.06	.84	.62
John Henryism	3.72	.78	.76

Table 2

Bivariate Correlations for Study Variables

		1	2	3	4	5	6	7	8
1	Female	--							
2	Historically underrepresented minority	.10	--						
3	Age	-.04	-.01	--					
4	Work done	.08	-.06	.20**	--				
5	Vigor	.08	-.13	.17*	.25**	--			
6	Dedication	.05	.06	.18**	.22**	.54**	--		
7	Absorption	.08	-.03	.08	.20**	.62**	.59**	--	
8	JH	.13	.23**	.08	.18*	.32**	.20**	.25**	--

Note. Work done = Ability to get work done where they live. Low social = Identify as low social power (Black, Latinx). JH = John Henryism.

*p <.05

**p < .01

Table 3

EFA for John Henryism

	Factor		
Items	1	2	3
Once I make up my mind to do something, I stay with it until the job is completely done.	.71	.19	-.21
When things don't go the way I want them to, that just makes me work even harder.	.67	-.08	.05
I don't let my personal feelings get in the way of doing a job.	.55	-.18	-.04
Hard work has really helped me to get ahead in life.	.53	-.11	.18
I felt that I could make of my life pretty much what I wanted to make of it.	.51	-.14	.20
In the past, even when things got tough, I never lost sight of my goals.	.48	.05	.15

I like doing things that other people thought could not be done.	.38	.19	-.06
I feel that if anything is going to be done right I have to do it myself.	-.19	.56	.14
I feel that I am the kind of individual that stands up for what he/she believes in, regardless of the consequences.	.23	.41	-.01
It is important for me to do things the way I want to do them, rather than the way other people want me to do them.	-.07	.31	.04
It's not easy but I manage to find a way to do the things I really need to get done.	.11	.23	.45
Very seldom have I been disappointed by the results of my hard work.	-.01	.07	.43

Note. EFA with Promax rotation. Bold values indicate factor used for current study (the hard work and self-reliance subscale).

Table 4

Model Fit

Statistic	Value
X^2	181.83
(df)	(126)
p	.0008
RMSEA	.05
90 Percent C.I.	.03 - .06
CFI	.93
SRMR	.05

Table 5

CFA (Standardized)

Item	β	SE	t	p
John Henryism				
Q10	.53	.07	7.81	.000
Q11	.59	.06	9.60	.000
Q12	.68	.06	12.04	.000
Q13	.59	.06	9.55	.000
Q14	.51	.07	7.19	.000
Q15	.59	.06	9.74	.000
Absorption				
Q6	.64	.06	10.74	.000
Q8	.65	.06	10.28	.000
Q9	.31	.08	3.85	.000
Dedication				
Q3	.79	.05	16.62	.000
Q4	.65	.06	11.37	.000
Q7	.53	.06	8.34	.000
Vigor				
Q5	.73	.04	18.26	.000
Q2	.65	.05	12.71	.000

Q1	.58	.07	8.72	.000

Table 6

Direct Effects (Standardized)

Variable	β	SE	t	p
Absorption				
JH	.42	.11	3.76	.000
Work done	.22	.09	2.52	.012
Dedication				
JH	.20	.10	2.05	.041
Age	.17	.08	2.12	.034
Vigor				
JH	.45	.10	4.60	.000
Historically underrepresented minority	-.25	.09	-2.78	.005
Age	.15	.08	1.97	.049
John Henryism				

Historically underrepresented minority	.27	.11	2.52	.012
Work done	.19	.07	2.62	.009

Note. Work done = Ability to get work done where they live. Low social = Identify as low social power (Black, Latinx). JH = John Henryism.

Table 7

Indirect Effects (Standardized)

Variable	β	SE	t	p
Absorption through JH				
Work done	.08	.04	2.12	.034
Vigor through JH				
Work done	0.09	.04	2.33	.020
Historically underrepresented minority	.12	.06	2.00	.045

Note. Work done = Ability to get work done where they live. Low social = Identify as low social power (Black, Latinx). JH = John Henryism.

Table 8

Qualitative Theme Counts and Examples

Theme	n	%	Code	n	%	Example
Intra- personal	79	48				
			Discontent (Including Burnout and Depression)	18	11	"I found it to be very tough..."
			Reduced Motivation	18	11	"Honestly I feel less motivated to do it."
			Reduced Engagement	13	8	"It is so hard to learn anything when I'm not in class..."
			Content (Including Acclimated/Adjusted)	12	7	"It was a tough transition but I adapted..."
			Role Identity	8	5	"I live in a small space where I can't separate school and personal life."
			John Henryism	6	4	"Its [sic] been quite stressful and upsetting but I just gotta pull through."
			Components of Self-Regulated Learning	4	2	"...it made me more responsible for my own learning. I had to ensure I was constantly organized..."
Contextual	69	42				
			Chaotic Environment	19	12	"It is a bit difficult at times to focus without the distractions from your household/family."
			Negative Change in Workload	10	6	"...the workload was overkill and very aggressive."
			Peaceful Environment	9	6	"...I am lucky to have a pretty quiet household during the day."
			Negative Change in Teaching Modality	8	5	"...sometimes it is harder because I am not able to ask questions when watching pre-

					recorded lectures as I would be able to in-person."
		Positive Change in Teaching Modality	6	4	"It's easy to do work where ever [sic] you are because it is online."
		Pandemic Restrictions (Other)	6	4	"...I definitely miss changing up the scenery where I do my school work like being able to go to a coffee shop."
		Physical Discomfort	6	4	"...my brain can't handle this much time at a computer..."
		Shift in Responsibilities	5	3	"I prioritize other responsibilities over schoolwork."
Inter- personal	15	9			
		Decreased Interaction with Peers	6	4	"I really miss the personal interaction with classmates..."
		Decreased Interaction with Professors	4	2	"It is stressful completing the assignments because I have no relationship at all with the person grading them."
		School-Related Interpersonal Experiences (General)	2	1	"...due to the lack of connection it has been harder to care about what I am doing."
		Positive Interactions with Professors	2	1	"...took advantage of my teachers office hours for more individualized instruction."
		Positive Interaction with Peers	1	1	"It is nice to be surrounded by other people in the same situation because we do work together and encourage each other."
Total	163		163		

Note. Total of percentages for categories and subcategories may not be 100% due to rounding.