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**Contextual Predictors of BIPOC Students' College Experience at a PWI: A S-BIT of Work
Perspective**

A Plan B Research Project
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Abstract

Objectives: Utilizing the theoretical framework of the Strengths-Based Inclusive Theory of Work (S-BIT of Work), the purpose of this study was to assess the relationships among contextual factors, the college setting, and positive individual characteristics amongst BIPOC college students. Specifically, discrimination, institutionalized classism (contextual variables), supportive university environment, cultural congruity (promotive work/educational context variables), hope, strengths use, and empowerment (individual positive characteristics) were examined. **Participants:** 98 adult college students from a predominately White 4-year institution in the Midwest (United States) who identified as BIPOC were recruited for this study. **Method:** Participants were recruited via three recruitment methods: emails to student clubs, organizations, and offices; extra credit offered by psychology faculty; and the University of Minnesota Duluth's Psychology Research Pool (SONA). Participants completed validated measures for each variable previously noted. Participants were either entered into a drawing for one of 74 \$25 gift cards, if desired, offered extra credit in a psychology course, or offered SONA credit depending on the recruitment method. **Results:** Path analysis was used to evaluate the theoretical model. Discrimination significantly and negatively predicted supportive university environment and cultural congruity. Also, results approached significance between institutionalized classism and hope, with a negative relationship. Results suggest that contextual barriers BIPOC students experience negatively relate to their perceptions of their environment, and these barriers may negatively relate to students' goal-setting ability (i.e., hope).

Keywords: discrimination, support, positive psychology, BIPOC students, hope

Contextual Predictors of BIPOC Students' College Experience at a PWI: A S-BIT of Work Perspective

College offers students an opportunity to experience upward mobility, which is relevant for underrepresented and underserved groups (Langhout et al., 2007; Oreopoulos & Petronijevic, 2013). However, many institutions uphold White, middle-class values (Menges & Exum, 1983; Sensoy & DiAngelo, 2011) and were built upon oppressive practices that still impact students of color (Harper, 2012; Williams et al., 2022). Furthermore, the influence of contextual factors on college students' outcomes is understudied (Byrd & McKinney, 2012; Hunt & Eisenberg, 2010), particularly students who identify as Black, Indigenous, and other people of color (BIPOC; Hunt & Eisenberg, 2010; Winkle-Wagner, 2015). Research on BIPOC students' college experience often emphasizes individual factors (e.g., self-efficacy) but often neglects institutional factors (Harper, 2012; Winkle-Wagner, 2015), despite experiences with racism (e.g., Ancis et al., 2000; Donovan et al., 2012; Fischer, 2010; Harper, 2012; Mesouani, 2023; Pieterse et al., 2012; Sanders Thompson, 2006; Williams et al., 2022), classism (Langhout et al., 2007), and a lack of institutional support (Byrd & McKinney, 2012; Crisp et al., 2015; Porter & Byrd, 2021).

Along with a lack of research on contextual factors, there is a need for strengths-based research with this population. Research on the mental health of BIPOC students often comes from a deficits-based perspective (Mushonga, 2021), and students' success is often defined in relation to persistence rather than well-being or self-defined outcomes (Winkle-Wagner, 2015). This ignores positive psychology's notion that mental health is the presence of flourishing plus the absence of distress (Seligman & Csikszentmihalyi, 2000). Thus, promoting and enhancing BIPOC students' individual, positive characteristics may increase psychological (Davidson et al., 2010; Grier-Reed et al., 2022; Helling & Chandler, 2021; Molix & Bettencourt, 2010; Tiliouine

& Bougaci, 2022; Warren et al., 2015) and academic (D'Amico Guthrie & Fruiht, 2020; Dixon et al., 2018) outcomes. Furthering research on contextual factors with a strengths-based approach may allow for a more holistic understanding of BIPOC students' experiences. Thus, using the Strengths-Based Inclusive Theory of Work (S-BIT of Work), this study aimed to contribute to the research assessing contextual factors and positive characteristics among BIPOC college students.

Theoretical Framework: The Strengths-Based Inclusive Theory of Work

The S-BIT of Work is a new vocational theory that aims to fill a gap in the literature by focusing on a person's positive characteristics and well-being (Owens, Allan, & Flores, 2019). The S-BIT of Work builds upon past vocational theories and research, and emphasizes contextual considerations—including developmental, cultural, societal, and environmental influences—that are out of a person's control but impact the daily experiences of diverse populations. Ultimately, the S-BIT of Work highlights the various factors that allow positive individual characteristics to flourish, leading to fulfilling work (i.e., the comprehensive experience of well-being in work and educational contexts, including job satisfaction, meaningful work, work engagement, and workplace positive emotions; Allan et al., 2019).

The S-BIT of Work highlights the importance of contextual supports and barriers on achieving fulfilling work, which includes access to resources, access to opportunity structures, and the presence of systemic inequities (e.g., discrimination). It proposes those who have greater contextual supports and fewer contextual barriers are more likely to achieve a promotive work context, which is an educational or work environment where a person feels supported, valued, appreciated, and dignified, and that their values align with their organization. Further, those in a promotive work context are more likely to be able to use their positive individual characteristics.

Taken together, contextual supports and a promotive work context contribute to fostering positive individual characteristics. Though there are many positive individual characteristics at play in an academic or work environment, this theory suggests hope, strengths, adaptability, and empowerment may be of particular interest given their generalizability across populations. By encouraging people to use their own positive characteristics, the theory suggests they will be able to maximize their contextual supports, address barriers in their environment, positively influence their work environment, and ultimately experience fulfilling work (Owens, Allan, & Flores, 2019). For the purposes of this study, the term “promotive educational context” will be used to describe the promotive work context for clarity.

Contextual Supports and Barriers

Discrimination

Though there is a variety of research examining the role of individual factors on college student outcomes, research highlighting the influence of the educational environment on student outcomes is lacking (e.g., Byrd & McKinney, 2012; Hunt & Eisenberg, 2010). This is concerning as minoritized groups may be affected by external factors to a greater extent (e.g., Ancis et al., 2000; Byrd & McKinney, 2012; Donovan et al., 2012). Along with academic stress, race-related barriers, such as discrimination (Bravo et al., 2021; Donovan et al., 2012; Modir & Kia-Keating, 2018), racially tense campus climates (Byrd & McKinney, 2012), microaggressions (Donovan et al., 2012; Williams et al., 2022), and social isolation (Byrd & McKinney, 2012), leads to worsened mental health (Chen et al., 2019; Pieterse et al., 2012) and academic outcomes (Campbell et al., 2019; Fischer, 2010), and may produce trauma symptoms for students of color (Pieterse et al., 2010; Williams et al., 2022).

For example, in a large, racially diverse sample of college students, discrimination-related stress was positively associated with poor mental health, including depression symptoms, anger, anxiety, suicidal ideation, and sleep disturbances (Bravo et al., 2021). Furthermore, although White students report more psychiatric diagnoses than students of color, students of color are more likely to report feelings of hopelessness, dysfunction due to depression, and suicidal thoughts or attempts (Chen et al., 2019). Additional findings showed that Black and Hispanic students, when compared to White and Asian students, tend to have lower grade point averages (GPAs) and are less likely to obtain their degree as a result of stereotype threat, pressure to perform well, and racial tensions on campus (Fischer, 2010). These results further exemplify the need for colleges and universities to actively cultivate an environment where students of color feel accepted and supported.

Institutionalized Classism

Social class status also influences students' outcomes in college. Social class is context-dependent and refers to the amount of money a person has access to (economic capital), one's available social network (social capital), and a person's understanding and familiarity with the practices of the dominant culture (cultural capital; Bourdieu, 1986; Langhout et al., 2007). *Classism* is treating individuals with a low socioeconomic status as the "other" by separating, excluding, devaluing, and discounting them based on negative stereotypes and attitudes (Langhout et al., 2007; Lott, 2002). Furthermore, *institutionalized classism* is applying this broader definition of classism to organizations and their structures. Research suggests those from lower-class backgrounds tend to experience more class-based discrimination than those from upper-class (Allan et al., 2016; Langhout et al., 2007), and experiences with institutionalized classism negatively predict academic satisfaction and life satisfaction (Allan et al., 2016).

Evidence indicates that the intersection of race, class, and gender all influence students' experiences in college (Allan et al., 2016; Langhout et al., 2007). In the U.S., it appears that people of color make up a greater proportion of the working class and working poor, and this rate is increasing over time (Draut, 2018). According to the U.S. Bureau of Labor Statistics, in 2021, those who identify as Black made up 6.4% of the working poor, and those who identify as Hispanic made up 7.3%. In contrast, those who identify as White made up 3.6% of the working poor (U.S. Bureau of Labor Statistics, 2023). This suggests that students who identify as BIPOC may disproportionately experience classism compared to their White counterparts, while simultaneously facing racism.

Promotive Educational Context

Supportive University Environment

A supportive university environment is key to students' success by providing students with access to resources, financial aid, and support from knowledgeable staff and faculty (Back & Keys, 2020). Research shows that racially minoritized students' perceptions of their college environment tend to be positively associated with academic satisfaction (Hotchkins et al., 2021; Lewis, 2016), academic and social engagement (Beasley, 2021), and GPA (Edman & Brazil, 2009). In addition, academic environments where racially minoritized students experience social support (Hotchkins et al., 2021; Locks et al., 2008; Owusu-Agyeman, 2021), faculty support (Hotchkins et al., 2021), and have access to university student support services (Crisp et al., 2015; Hotchkins et al., 2021; Hurtado & Ponjuan, 2005) have been shown to contribute to a sense of belonging. Moreover, a sense of belonging is positively associated with perceived self-worth and academic competence, and negatively associated with depressive symptoms (Gummadam et al., 2016). Further research suggests student-faculty relationships lessen the

impact of experiences with discrimination on students' perceptions of their campus climate (Cress, 2008), and institutional agents that are proactive, share a common ground with their students, provide holistic support, and humanize education positively influence students of color's experiences and success in college (Museus & Neville, 2012).

Cultural Congruity

Cultural congruity refers to a student's sense that their cultural values, beliefs, and behavior expectations align with their college or university's academic culture (Gloria & Robinson Kurpius, 1996). Research suggests cultural congruity contributes to help-seeking attitudes amongst students (Gloria et al., 2001) and predicts students' academic persistence (Gloria et al., 2009). Research also shows that White students report higher levels of cultural congruity compared to other racial and ethnic groups (Gloria et al., 2001). Despite these differences, evidence suggests when students of color experience higher levels of cultural congruity, they are more likely to experience positive outcomes. For instance, cultural congruity is shown to be positively associated with psychological well-being (Gloria et al., 2009), academic satisfaction (Soto & Deemer, 2018), and GPA (Edman & Brazil, 2009) with Latino students. Additionally, cultural congruity is positively related to self-esteem and perceived social support satisfaction amongst Black and Latino students (Constantine et al., 2002). Cultural congruity has also been found to account for help-seeking attitudes for racially and ethnically minoritized students; however, they may tend to report lower levels of cultural congruity and worse perceptions of the university environment, resulting in negative help-seeking attitudes (Gloria et al., 2001).

Positive Individual Characteristics

Within the S-BIT of Work, Owens, Allan, & Flores (2019) identified hope, strengths, and empowerment as generalizable individual positive characteristics that are particularly applicable to diverse populations. Additionally, existing research supports that hope, strengths, and empowerment are beneficial characteristics for college students (e.g., Allan et al., 2019; Bachik et al., 2021; Gallagher et al., 2017; Griggs, 2017; Lounsbury et al., 2009; You, 2016).

Hope

Hope is defined as planning possible ways to achieve goals (i.e., pathways) and possessing the motivation to achieve those goals (i.e., agency; Snyder, 2000). Hope has been shown to be beneficial and applicable across various contexts and cultures (Chang & Banks, 2007). Research suggests hope is associated with improved academic performance (e.g., GPA; Feldman et al., 2015; Gallagher et al., 2017), increased school retention (Gallagher et al., 2017), and improved mental health (Griggs, 2017). Hope is argued to promote goal-oriented behavior used in the face of adversity, as it provides a positive mechanism for people to address contextual barriers (Owens, Allan, & Flores, 2019). Hope is also believed to be relevant across diverse racial and ethnic groups, and levels of hope appear to be consistent with all identities (Chang & Banks, 2007; Dixson et al., 2018). However, the way hope manifests may vary across groups (Chang & Banks, 2007). Additionally, hope not only influences one's ability to address contextual factors, but contextual factors might also influence the use of hope (see D'Amico Guthrie & Fruht, 2020). This is important as experiences with racism and classism are associated with less hope, which are contextual barriers that students of color often face (Bravo et al., 2021; Donovan et al., 2012; Langhout et al., 2007).

Hope has been found to be positively correlated with beneficial outcomes (e.g., life satisfaction, positive affect, rational problem solving) and negatively correlated with adverse

outcomes (e.g., negative affect, avoidance style) across European, African, Latino/a, and Asian American college students (Chang & Banks, 2007). However, research has also shown that the strongest predictors (e.g., life satisfaction, positive affect, lack of negative problem orientation, positive problem orientation, rational problem solving) for each of the two components of hope—pathways thinking and agentic thinking—may vary across European, African, Latino/a, and Asian American college students (Chang & Banks, 2007). Furthermore, higher levels of hope have been shown to be associated with lower levels of depression for students identifying as Black, Latinx, and Asian (Lemon et al., 2021), and hope has been shown to mediate the positive association between socioeconomic status (SES) and GPA in diverse samples (Dixson et al., 2018). Despite this, evidence suggests that more experiences with classism and racism is associated with lower levels of hope in the workplace for undergraduate students from underrepresented backgrounds (Thompson et al., 2014). This further highlights the interrelationship between levels of hope and one's context, as well as the need for understanding the impact of hope on BIPOC college students.

Strengths Use

Strengths are broadly defined as a person's positive traits and skills that lead to optimal functioning (Owens et al., 2018). Developmentally, strengths have been shown to be relatively stable; however, one's environment can reinforce or hinder a strength (Owens et al., 2018). Strengths are present across cultures (Constantine & Sue, 2006; Owens, Allan, & Flores, 2019), but their definitions and manifestations may vary (Owens, Allan, & Flores, 2019; Owens, Flores, et al., 2019; Pedrotti et al., 2009). In the college context, research indicates that strengths are positively associated with improved psychological outcomes (Bachik et al., 2021; Sivis-Cetinkaya, 2013), academic outcomes (e.g., college satisfaction, GPA, academic persistence;

Allan et al., 2019; Bachik et al., 2021; Browning et al., 2018; Lounsbury et al., 2009), and well-being (Bachik et al., 2021; Lounsbury et al., 2009; Sivis-Cetinkaya, 2013; Smith et al., 2021). Also, the use of strengths can be positively or negatively influenced by contextual factors, such as one's social environment (i.e., family, friends, peers), societal influences, education, career, external demands (i.e., financial challenges, health problems), events (i.e., moving), and activities (Owens et al., 2018).

Research examining BIPOC students' strengths is limited, but evidence suggests there are several benefits. For instance, strengths-based approaches appear to be helpful at increasing retention and graduation rates for college students of color (Banks & Dohy, 2019). In a diverse sample of first-year college students, gratitude was found to be positively associated with academic integration and academic achievement (Browning et al., 2018). The strength of spirituality has also been shown to be positively associated with flourishing among college students who identify as Black (Grier-Reed et al., 2022; Mushonga & Henneberger, 2020), and the strength of religiosity has been shown to be positively linked to happiness among Arab college students (Abdel-Khalek & Lester, 2017). Qualitative research with a racially diverse sample of first-generation college students also found that the strengths of perseverance and pride also aid in overcoming challenges in college (Havlik et al., 2020). Research also suggests strength-based approaches are helpful in addressing mental health concerns (Helling & Chandler, 2021). Incorporating the strengths of international students of color, such as social connections and resourcefulness, in counseling interventions may be beneficial as well (Anandavalli, 2021; Anandavalli et al., 2021). More research is needed in order to understand the role of strengths use within BIPOC students.

Empowerment

Empowerment is a process where people and groups gain mastery over issues of concern using goal-directed behavior (Back & Keys, 2020; Blustein, 2006; Richardson, 2000).

Empowerment involves people's perceived ability to control their environment, distinguishing it from hope (Spreitzer, 2007). Research suggests that empowerment is associated with several beneficial outcomes with college students (e.g., efficacy, hope, optimism, resilience, academic engagement, job performance; Meyerson & Kline, 2008; You, 2016; Youssef & Luthans, 2007), and empowerment interventions may help to reduce students' depression and anxiety symptoms (Hart Abney et al., 2019). However, research investigating empowerment within BIPOC students appears to be limited. Furthermore, research suggests that empowerment is situation-dependent, and academic environments can influence students' levels of empowerment (Frymier et al., 1996; McMahon et al., 2020; Peterson et al., 2014).

Evidence suggests that empowerment mediates the relationship between group ethnic identity and well-being amongst college students of color, but not White students (Molix & Bettencourt, 2010). Additional research with adolescents of color indicated that psychological empowerment is positively and directly associated with community participation and sense of community (Lardier, 2018; Lardier et al., 2021). Also, empowerment interventions can improve career self-efficacy and reduce interference of dysfunctional thoughts in career decision-making amongst culturally diverse college students (Grier-Reed et al., 2009).

The Current Study

The purpose of this study was to examine the relationship among contextual factors and positive individual characteristics with a sample of college students who identify as BIPOC, using the theoretical framework of the S-BIT of Work. In line with this theory, it was

hypothesized that the contextual factors of discrimination and institutionalized classism would predict the promotive educational context factors of supportive university environment and cultural congruity. In addition, it was predicted that the two promotive educational context factors (supportive university environment and cultural congruity) would predict the positive individual characteristics of hope, strengths use, and empowerment—the outcome variables. See Figure 1 for the proposed model.

A number of secondary hypotheses were also assessed. It was predicted that discrimination and institutionalized classism would be negatively related to supportive university environment and cultural congruity, and indirectly and negatively related to hope, strengths use, and empowerment via supportive university environment and cultural congruity. Additionally, it was predicted that supportive university environment and cultural congruity would be positively related to hope, strengths use, and empowerment.

Positionality Statement

As a formally educated, cisgender, White woman raised in a middle-class household (in a community that shared many of my identities), I come from a place of privilege. I acknowledge that I have not lived the experiences of those who identify as BIPOC, nor those who have a low socioeconomic status. As a researcher and future clinician who values multiculturalism and social justice, it is imperative that I continually and actively engage in the process of reflexivity, as well as aim to better understand and learn from underrepresented, underserved groups. This will hopefully help me understand how my personal worldview shapes how I approach all research projects I am involved with, so that I can make strong attempts to lessen the impacts of personal biases now and in the future. I strongly believe it is the responsibility of those in positions of power to promote social justice, equity, and inclusion, not solely those who are

negatively impacted by discriminatory policies, practices, and behaviors. However, I recognize that my efforts to advance multiculturalism and social justice research will inevitably coincide with my own biases, beliefs, values, and lived experiences.

Method

Participants

A total of 109 BIPOC undergraduate students were included in this study. This sample was drawn from a larger sample of 965 undergraduate students from the Midwest in the United States at a predominately White institution. Inclusion criteria for this study included that participants were enrolled as an undergraduate student at a college or university, were at least 18 years of age, and were living in the United States at the time of the study. Individuals who identified as Middle Eastern or North African (MENA) were included in the sample of BIPOC students, although it is understood that not all people who identify as MENA also identify as BIPOC. Of the 109 BIPOC students, two completed only the demographic questions, two participants completed a limited amount of the questionnaires, six were duplicate participants, and one failed two out of the three attention check items; therefore, they were excluded from the analyses. The resulting sample consisted of 98 BIPOC students who were included in the analyses.

The mean age of the BIPOC students was 20.35 years ($SD = 3.20$) and ranged from 18 to 38 years old. Participants identified as 62.2% ($n = 61$) women, 29.6% ($n = 29$) men, 2.0% ($n = 2$) non-binary, 2.0% ($n = 2$) agender, 2.0% ($n = 2$) as “another,” and 2.0% ($n = 2$) did not disclose. Additionally, participants identified as 29.6% ($n = 29$) Asian/Asian American, 27.6% ($n = 27$) Biracial, 17.3% ($n = 17$) Hispanic/Latino/a/x American, 8.2% ($n = 8$) Multiracial, 4.1% ($n = 4$) African American, 3.1% ($n = 3$) Black, 3.1% ($n = 3$) American Indian/Native American/First

Nation, 2.0% ($n = 2$) African, 2.0% ($n = 2$) Asian Indian, 2.0% ($n = 2$) Pacific Islander, and 1.0% ($n = 1$) Arab American/Middle Eastern. Furthermore, participants were 34.7% ($n = 34$) first-year students, 21.4% ($n = 21$) second-year students, 21.4% ($n = 21$) third-year students, 16.3% ($n = 16$) fourth-year students, and 6.1% ($n = 6$) were fifth-year students or higher. At the beginning of the survey, participants completed three screener questions that asked them whether or not they were currently a student in college or university, living in the U.S., and 18 years or older.

Participants who indicated they did not fit one or more of the inclusion criteria were automatically removed from the survey.

Measures

Institutionalized Classism

Classism was measured using the institutionalized classism subscale of the Classism Experiences Questionnaire—Academe (CEQ-A; Langhout et al., 2007). All items were scored on a 5-point Likert-type scale (1 = *never*, 5 = *many times*), where participants indicated how often they experienced a given situation. The institutionalized classism subscale contains five items; an example item is “You could not take a class because you could not afford the fees for the class.” The institutionalized classism subscale has demonstrated sufficient internal consistency ($\alpha = .74$). The internal consistency for this study was $\alpha = .68$.

Discrimination

Discrimination was measured using the Campus Racial/Ethnic Climate subscale of the Perceived Prejudice and Discrimination measure (PDD; Cabrera & Nora, 1994). This subscale assesses one’s global perception of the presence of racial and ethnic prejudice and discrimination on campus. This subscale contains four items that were scored on a 5-point Likert-type scale (1 = *strongly disagree*, 5 = *strongly agree*). An example item is “I have encountered racism while

attending this institution.” On the item stating, “I have observed discriminatory words, behaviors or gestures directed at minority students at this institution,” the word “minority” was omitted in this study. The PPD has demonstrated high internal consistency ($\alpha = .84$), and subscale items show good construct validity (Cabrera & Nora, 1994). The internal consistency for this study was $\alpha = .82$.

Supportive University Environment

Supportive university environment was measured using the Supportive University Environment subscale of the College Student Empowerment Scales (CSES; Back & Keys, 2020). This factor measures students' perceptions of the university's environment and the availability of resources. It includes 14 items scored on a 6-point Likert-type scale (1 = *strongly disagree*, 6 = *strongly agree*). An example item includes “People at this university are able to accommodate my unique needs as a student in a way that works for me.” The supportive university environment factor has demonstrated high internal consistency ($\alpha = 0.94$; Back & Keys, 2020) and high test-retest reliability ($r = .74$; $p < .001$; Back & Keys, 2020). This subscale has also exhibited good convergent validity with academic self-efficacy ($r = .30$, $p < .001$; Back & Keys, 2020) and alienation ($r = -.50$, $p < .001$; Back & Keys, 2020). The internal consistency for this study was $\alpha = .96$.

Cultural Congruity

Cultural congruity was measured using the Cultural Congruity Scale (CCS; Gloria & Robinson Kurpius, 1996). This scale assesses students' sense of cultural fit in their college or university's environment. The CCS includes 13 items scored on a 7-point Likert-type scale (1 = *not at all*, 7 = *a great deal*). An example item includes “I feel that I have to change myself to fit in at school.” On four items that referenced “ethnicity” or “ethnically,” the researcher slightly

adapted the wording to state “race/ethnicity” or “racially/ethnically” given this study’s sample. Additionally, the phrase “as an ethnic minority” was omitted from the item stating “I feel accepted at school as an ethnic minority” in this study. This scale has exhibited high internal consistency ($\alpha = 0.81$; Gloria & Robinson Kurpius, 1996). The internal consistency for this study was $\alpha = .89$.

Hope

Hope was measured using the State Hope Scale (Snyder et al., 1996). The overall hope score consists of two subscales: agency and pathways. The agency subscale measures students’ perceived ability to initiate actions to reach a goal and to continue following through with them. The pathways subscale measures students’ ability to identify different alternatives to reach their goal. The State Hope Scale includes six items scored on an 8-point Likert-type scale ranging from 1 (*definitely false*) to 8 (*definitely true*). Half of the items pertain to agency and half pertain to pathways, which added together results in an overall summed hope score. An example pathways item from this scale includes “If I should find myself in a jam, I could think of many ways to get out of it.” An example agency item includes “At the present time, I am energetically pursuing my goals.” The State Hope Scale has exhibited high internal consistency (total scale $\alpha = .82-.95$; agency subscale $\alpha = .83-.92$; pathways subscale $\alpha = .74-.93$; Snyder et al., 1996) and sufficient convergent validity with dispositional hope ($r = .79-.78, p < .001$), state self-esteem ($r = .68-.75, p < .001$), state positive affect ($r = .65-.55, p < .01$), and state negative affect ($r = -.47-.50, p < .01$; Snyder et al., 1996). In this study, the internal consistency for the State Hope Scale was $\alpha = .81$.

Strengths Use

Strengths use was measured using the Strengths Use Scale (SUS; Govindji & Linley, 2007), which assesses how often students use their strengths in a variety of settings. It contains 14 items scored on a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). An example item includes “I am regularly able to do what I do best.” This scale has demonstrated very high internal consistency ($\alpha = .94-.97$; Govindji & Linley, 2007; Wood et al., 2011), as well as high test-retest reliability ($r = .84$; Wood et al., 2011). This scale has also demonstrated criterion and predictive validity with stress, self-esteem, vitality, and positive affect (Wood et al., 2011). The internal consistency for this study was $\alpha = .91$.

Empowerment

Empowerment was measured using the Self-Efficacy/Control subscale of the College Student Empowerment Scales (CSES; Back & Keys, 2020). This subscale measures students' self-efficacy, responsibility, choice, and motivation pertaining to the college or university setting. The CSES includes four items on a 6-point Likert-type scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). The Self-Efficacy/Control factor of the CSES has demonstrated good internal consistency ($\alpha = 0.84$; Back & Keys, 2020) and good test-retest reliability ($r = .62$; $p < .001$; Back & Keys, 2020). This measure has also exhibited good convergent validity with academic self-efficacy ($r = .68$, $p < .001$; Back & Keys, 2020) and alienation ($r = -.28$, $p < .001$; Back & Keys, 2020). The internal consistency for this study was $\alpha = .80$.

Procedure

After obtaining approval from the Institutional Review Board, participants were recruited using three different methods—student offices and organizations, Psychology classes, and the University of Minnesota Duluth's Psychology Research Pool (SONA). Participating students recruited from student organizations and Psychology classes received a recruitment email, which

included a brief description of the study and link to the survey. Those recruited from the SONA system saw a description of the study in the online SONA system and could choose whether or not they wanted to participate.

Before completing the survey, participants were provided with the informed consent document online; if they completed the survey, this indicated their agreement to participate. The survey included demographic questions developed by the researcher and all of the measures listed above (please see the Appendix for the full measures and consent forms used in this study). It also included three screener items at the beginning of the survey that assessed the inclusion criteria (i.e., enrolled as an undergraduate student at a college or university, at least 18 years of age, and living in the United States), three attention check items, and an item at the end of the survey asking students whether or not they think their data should be included in the analyses. Participants were removed from the survey if they did not meet one or more of the inclusion criteria. Participants were also excluded from the analyses if they failed two or three of the attention check items or indicated the researchers should not use their data.

Participants recruited from student organizations were provided with the opportunity to be entered into a drawing for one of 74 \$25 prepaid debit cards, if desired. Participants recruited from psychology classes were offered extra credit by their professor. Finally, participants recruited through the SONA system received 0.5 SONA credits for the participation, consistent with other studies that were a similar length of time to complete. After collecting data from the three recruitment methods, all data were compiled together into one data set. Then, participants who indicated they identified as BIPOC were included for this study's analyses.

Planned Analyses

Path analysis using the maximum likelihood (ML) estimator on Mplus 8.10 (Muthen & Muthen, 1998-2019) was used to evaluate the models. The chi-square test (χ^2), comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized root-mean-residual (SRMR; Hu & Bentler, 1999) were used to evaluate the fit of the model. Given the sample size, less conservative fit statistics cut-offs were used ($CFI \geq .90$; $RMSEA \leq .10$, $SRMR \leq .10$; Weston & Gore, 2006).

In the models tested, variables within the same levels (e.g., promotive educational context) were allowed to correlate. The proposed full mediation model was tested first. Then, additional incremental validity models were assessed to achieve the most parsimonious model, where direct relationships from the contextual factors (i.e., discrimination, institutionalized classism) to the three outcomes (i.e., hope, strengths use, empowerment) were included.

Results

Preliminary Analyses

To examine missing data, Little's missing completely at random test was conducted, which was not significant, $\chi^2(177) = 206.49, p = .06$. This suggests that missing data were missing completely at random. Expectation maximization in SPSS 24 was used to address missing data (0.05%) at the item level before computing the scale or subscales scores (Schlomer et al., 2010). Outliers on the subscales and scales were assessed, and upper and lower boundaries at the 25th and 75th percentiles were used to compare the values (Field, 2013). Then, outliers were identified and Winsorized (0.34% of the data; Field, 2013). After, skewness and kurtosis were assessed for each scale through visual inspection and examining statistical values. All variables were in the acceptable range for skewness and kurtosis (< 3 for skewness and < 10 for kurtosis; Weston & Gore, 2006). See Table 1 for the correlations between each variable.

Path Analyses

Four models total were tested using path analysis. The proposed full mediation model was assessed first, where the contextual factors (i.e., discrimination, institutionalized classism) predicted the promotive educational context variables (i.e., supportive university environment, cultural congruity), which then predicted the outcomes (i.e., hope, strengths use, empowerment). No direct effects between the contextual factors and the outcomes were included in this model. This model was found to have acceptable fit, $\chi^2(6) = 8.10, p = .23, CFI = .99, RMSEA = .06, 90\% CI [< .001, .15],$ and $SRMR = .05$. However, only discrimination significantly predicted supportive university environment ($\beta = -.61, p < .001$) and cultural congruity ($\beta = -.54, p < .001$).

Then, three additional models were assessed, where direct effects between the contextual factors and the outcomes were included. In the first incremental validity model, the direct effects between institutionalized classism and the three outcome variables were included. This model was found to have excellent fit, $\chi^2(3) = 2.01, p = .57, CFI = 1.00, RMSEA < .001, 90\% CI [< .001, .15],$ and $SRMR = .02$. The relationship between discrimination and supportive university environment ($\beta = -.61, p < .001$) and discrimination and cultural congruity ($\beta = -.54, p < .001$) remained significant. In this model, the relationship between institutionalized classism and hope was found to be significant ($\beta = -.22, p = .02$); however, the relationships between institutionalized classism and the other two outcome variables were not significant. This model was not significantly different than the full mediation model $\chi^2(3) = 6.09, p = .11$.

Thus, in the second incremental validity model, the significant direct effect between institutionalized classism and hope was retained, and the direct effects between discrimination and the three outcome variables were added. This model had excellent fit, $\chi^2(2) = 2.61, p = .27, CFI = 1.00, RMSEA = .06, 90\% CI [< .001, .22],$ and $SRMR = .03$. Again, the relationship

between discrimination and supportive university environment ($\beta = -.61, p < .001$) and discrimination and cultural congruity ($\beta = -.54, p < .001$) remained significant. In this model, the direct effect between institutionalized classism and hope was no longer significant, yet approached significance ($\beta = -.13, p = .06$). Additionally, the direct effects between discrimination and all three outcomes were non-significant. This model was not significantly different than the full mediation model $\chi^2(4) = 5.59, p = .24$.

Therefore, in the third incremental validity model—the final model—only the direct effect between institutionalized classism and hope was retained. This model had excellent fit, $\chi^2(5) = 4.51, p = .48$, CFI = 1.00, RMSEA < .001, 90% CI [$< .001, .13$], and SRMR = .04. Similarly to the other models, discrimination significantly predicted supportive university environment ($\beta = -.61, p < .001$) and cultural congruity ($\beta = -.54, p < .001$). Additionally, the relationship between institutionalized classism and hope was not significant, but approached significance ($\beta = -.13, p = .059$). This model was not significantly different than the full mediation model $\chi^2(1) = 3.59, p = .06$, though it approached significance. The final model was retained as the most parsimonious. See Figure 2 for the final model. The model explained 38% of the variance in supportive university environment and 31% of the variance in cultural congruity. The predictors did not explain a significant amount of variance in the outcomes.

Discussion

In this study, relationships between contextual (discrimination, institutionalized classism), promotive educational context (supportive university environment, cultural congruity), and positive individual characteristic (hope, strengths use, empowerment) variables were examined with a sample of BIPOC college students using the framework of the S-BIT of Work. The final incremental validity model demonstrated acceptable fit and was considered the most

parsimonious. Some, but not all, of the proposed hypotheses in this study were supported. First, students who endorsed higher accounts of perceived discrimination were less likely to perceive their university environment as supportive. This aligns with prior research suggesting that racially minoritized college students are likely to experience more prejudice from faculty and staff, in-class discriminatory experiences, and perceive their campus climate as discriminatory (Cabrera & Nora, 1994). Also, racially minoritized undergraduate students' academic sense of belonging decreased with more experiences of adversity (Walton & Cohen, 2007), and higher perceptions of a supportive university environment were associated with lower levels of university alienation (Back & Keys, 2020).

Another important finding of this study is that discrimination significantly and negatively predicted cultural congruity. This suggests that students who endorsed greater perceptions of discrimination were less likely to feel as though their personal culture, beliefs, and values align with the values and culture of the university they attend. This is consistent with past research, in that BIPOC students, who are more likely to encounter experiences with discrimination (e.g., Bravo et al. 2021; Forman et al., 1997; Pieterse et al., 2010), tend to report lower levels of cultural congruity compared to students who identify as White (Gloria et al., 2001). The significant, negative relationship between discrimination and the two promotive educational context variables (i.e., supportive university environment, cultural congruity) also align with the S-BIT of Work, in that more encounters with contextual barriers inhibits the achievement of a promotive educational context (Owens, Allan, & Flores, 2019).

Lastly, students who reported more experiences with institutionalized classism were somewhat less likely to demonstrate hope. Although this finding only approached significance, it aligns with past research; more experiences with classism related to lower levels of work hope

(i.e., hope applied to career-related goals) amongst racially underrepresented undergraduate students (Thompson et al., 2014), and that SES significantly and positively predicted levels of hope (Dixson et al., 2018). This also is consistent with the S-BIT of Work's contention that greater contextual barriers diminish one's ability to use their positive individual characteristics (Owens, Allan, & Flores, 2019). The other proposed hypotheses were not supported, likely due to being underpowered.

Implications

Considering the significant findings related to discrimination, colleges and universities should work towards reducing discrimination. This could be done by properly addressing discriminatory behavior, words, or gestures from faculty, staff, and other students and ensuring equitable treatment from staff and faculty. Implementing diversity, equity, and inclusion training that helps staff and faculty understand their biases would likely help to prevent and minimize the occurrence of overt discrimination and microaggressions. These trainings could also teach staff and faculty how to communicate and behave in ways that are sensitive to diverse racial groups and perspectives (Bravo et al., 2021). Institutionally, colleges and universities should also provide funding for such trainings and other racial justice efforts; recruit and support racially underrepresented faculty; create, implement, and maintain policies and campaigns that are against racism; and require the promotion of racial justice in class courses (Bravo et al., 2021). Also, directly assessing the current experiences of BIPOC students may prove helpful at targeting specific problems on each campus. This could be done by having college counseling centers assess the extent to which discriminatory experiences on campus impact BIPOC students' psychosocial functioning (Ancis et al., 2000), providing useful sources for reporting

racist experiences (Ancis et al., 2000), or assessing students' perceptions of their college's racial climate and gathering information on changes they would like to see.

Furthermore, institutions can help BIPOC students feel supported by providing educational training for all students, particularly White students, about stigma, biases, privilege, and the importance of advocacy in racial justice issues. These trainings could also raise awareness related to the perspectives and experiences of racially underserved groups (Ancis et al., 2000; Chen et al., 2019). Facilitating positive interactions with peers of diverse backgrounds through clubs, events, and activities may prove useful and increase a sense of belonging (Locks et al., 2008). In addition, maintaining mentorship and peer-support programs that connect BIPOC students to faculty, staff, and other students who share common identities may increase feelings of social support (Ancis et al., 2000). Moreover, cultivating caring and personal student-faculty relationships by increasing opportunities for students to access faculty outside of class (Cress, 2008) or providing academic advising that considers students' cultural background (Museus et al., 2017) would likely improve feelings of support as well.

Additionally, the association between institutionalized classism and hope that approached significance suggests that colleges and universities may benefit from enacting policies, procedures, and structures that financially aid BIPOC students in accessing housing, courses, and involvement in activities and organizations. For instance, college counseling centers could provide services for free or for a reduced fee, and these services could focus on implementing interventions aimed at increasing hope. This could also involve providing training for college counselors on positive psychological interventions, particularly interventions aimed to increase hope. Additionally, reducing financial burdens for students from lower SES backgrounds could be helpful, such as preventing increases in the cost of tuition or waiving fees for student services,

courses, and activities (Allan et al., 2016). This would likely help students feel as though they can achieve all of their academic related goals, as fees or financial burdens would not be as much of an interference for opportunities on campus.

Limitations

A major limitation of this study is its sample size ($n = 98$), which likely contributed to decreased statistical power. It is possible more significant findings could have been revealed in this study if there were more participants and greater power, especially considering the marginally significant direct effect between institutionalized classism and hope. Moreover, this study consists of cross-sectional data only, so conclusions about causality cannot be made. Another limitation of this study is that all students who identified as BIPOC were treated as one collective group. This may cause important nuances and differences between racial and ethnic identities to be missed, or findings may be over- or under-generalized to a particular group. Additionally, this study's sample consisted of BIPOC undergraduate students from the same, predominately White, Midwestern university, which may limit the generalizability of the findings. However, this study uniquely captures the experiences of BIPOC students at a predominantly White institution, which is a strength of the study.

Future Directions

Future research assessing the relationships between contextual factors and positive individual characteristics amongst BIPOC college students should involve a larger sample size in order to achieve greater statistical power. This will better allow researchers to understand relationships between variables to a greater extent. Additionally, conducting longitudinal research will allow researchers to make causal claims about the relationships between contextual barriers and supports and positive individual characteristics for this population. Also, it would be

important and meaningful for future research to assess these relationships within samples of individuals whose identities and experiences are shared more closely, while also acknowledging people with the same identities may have differing experiences. Moreover, future research should expand its sample and recruit from various predominantly White colleges or universities across the nation to increase our understanding of BIPOC students' experiences in this setting. More broadly, it would likely be beneficial to assess contextual factors and positive characteristics within the framework of the S-BIT of Work beyond a college student population with additional samples. Also, it may be worthwhile for future studies to assess additional contextual supports and barriers, promotive educational context variables, and positive individual characteristics that are applicable to this population but were not included in this study.

Conclusion

Using the S-BIT of Work, this study's purpose was to examine the relationships among contextual variables and positive individual characteristics with a sample of college students who identify as BIPOC. Results revealed that discrimination is particularly salient for BIPOC students' experience of support and congruity in the college setting. Therefore, it would be beneficial for colleges and universities to enact policies and procedures to minimize occurrences of discrimination towards BIPOC students, as well as provide equitable access to activities, courses, and organizations on campus. Future research should examine the relationships between contextual factors and positive individual characteristics with larger samples of racial and ethnic groups across the United States.

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Table 1.*Correlations Among Variables*

Variable	1	2	3	4	5	6	7
1. Institutionalized Classism	--						
2. Discrimination	.12	--					
3. Supportive University Environment	-.09	-.61**	--				
4. Cultural Congruity	-.13	-.55**	.66**	--			
5. Hope	-.24*	-.09	.19	.24*	--		
6. Strengths Use	-.17	-.09	.24*	.20*	.72**	--	
7. Empowerment	-.04	-.04	.20	.21*	.50**	.45**	--

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

Figure 1

The Proposed Model Testing the Strengths-Based Inclusive Theory of Work.

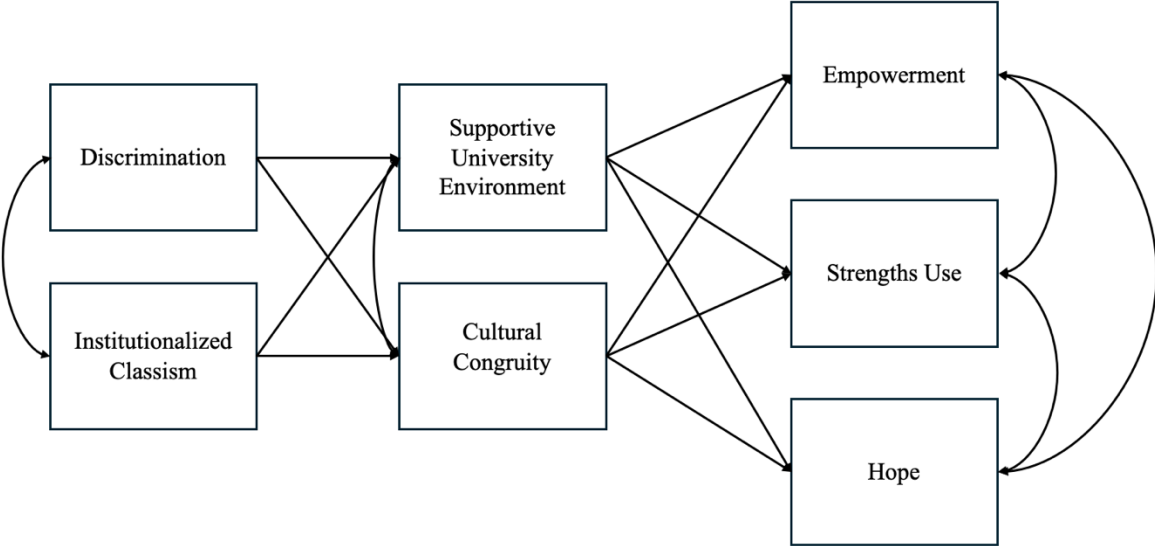
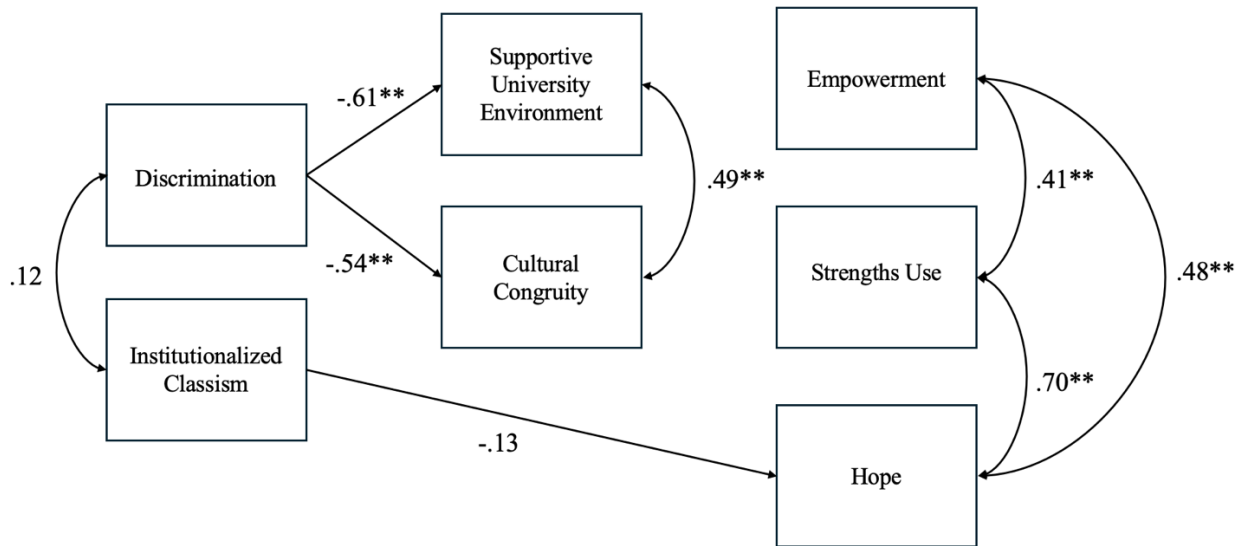


Figure 2

The Final Model Testing the Strengths-Based Inclusive Theory of Work.



Note. $*p < .05$. $**p < .01$. Coefficients are standardized.

Appendix

Institutionalized Classism

Classism Experiences Questionnaire—Academe, institutionalized classism subscale (CEQ-A;

Langhout et al., 2007)

During your time at college, were you ever in situations where:

Never (1), once or twice (2), sometimes (3), often (4), or many times (5)

1. You could not take a class (e.g., music, science, film) because you could not afford the fees for the class (for materials, travel, etc.)?
2. You could not join a sports team because you could not afford the associated expense?
3. You could not join an activity (e.g., Student Association) because your job hours consistently conflicted with the activity meetings/events?
4. You could not afford social activities (e.g., events at the Fine Arts Center) because of the fees?
5. You had to live in the dorms because you could not afford another housing option?

Discrimination

Perceived Prejudice and Discrimination (PDD), Campus Racial/Ethnic Climate Subscale

(Cabrera & Nora, 1994)

Please answer the following questions based on your personal experience:

1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

1. I have observed discriminatory words, behaviors or gestures directed at students at this institution.
2. I feel there is a general atmosphere of prejudice among students.
3. I have encountered racism while attending this institution.
4. I have heard negative words about people of my own race or ethnicity while attending classes.

Supportive University Environment

College Student Empowerment Scales, supportive university environment subscale (CSES;

Back & Keys, 2020)

Please mark your level of agreement with the statements below.

1 = Strongly Disagree, 2 = Disagree, 3 = Somewhat Disagree, 4 = Somewhat Agree, 5 = Agree,
6 = Strongly Agree

1. The university understands my needs as a student.
2. The environment at this university is accepting of students of my background.
3. As a student at this university, I am more than just a number.
4. The university has my best interests in mind.
5. The university makes an effort to support students.
6. The university tries to include students from all backgrounds.
7. The university is good at sharing information with students.
8. There are a lot of resources available at this university that are a good fit for me.
9. People take into account my unique needs at this university.
10. At this university, my needs as a student are met.
11. This university helps me fulfill my needs.
12. People at this university are able to accommodate my unique needs as a student in a way that works for me.
13. It's easy to get what I need at this university.
14. My distinctive cultural group perspective is appreciated at this university.

Cultural Congruity

Cultural Congruity Scale (CCS; Gloria & Robinson Kurpius, 1996)

For each of the following items, indicate the extent to which you have experienced the feeling or situation at school. Use the following ratings:

Not at all

A Great Deal

1 2 3 4 5 6 7

1. I feel that I have to change myself to fit in at school.
2. I try not to show the parts of me that are “racially/ethnically” based.
3. I often feel like a chameleon, having to change myself depending on the race/ethnicity of the person I am with at school.
4. I feel that my race/ethnicity is incompatible with other students.
5. I can talk to my friends at school about my family and culture.
6. I feel I am leaving my family values behind by going to college.
7. My racial/ethnic values are in conflict with what is expected at school.
8. I can talk to my family about my friends from school.
9. I feel that my language and/or appearance make it hard for me to fit in with other students.
10. My family and school values often conflict.
11. I feel accepted at school.
12. I feel as if I belong on this campus.
13. I can talk to my family about my struggles and concerns at school.

Hope

State Hope Scale (Snyder et al., 1996)

Directions: Read each item carefully. Using the scale shown below, please select the number that best describes *how you think about yourself right now* and put that number in the blank provided.

Please take a few moments to focus on yourself and what is going on in your life at this moment.

Once you have this "here and now" set, go ahead and answer each item according to the following scale: 1 = Definitely False, 2 = Mostly False, 3 = Somewhat False, 4 = Slightly False, 5 = Slightly True, 6 = Somewhat True, 7 = Mostly True, and 8 = Definitely True.

1. If I should find myself in a jam, I could think of many ways to get out of it.
2. At the present time, I am energetically pursuing my goals.
3. There are lots of ways around any problem that I am facing now.
4. Right now I see myself as being pretty successful.
5. I can think of many ways to reach my current goals.
6. At this time, I am meeting the goals that I have set for myself.

Note. When administering the measure, it is labeled the Goals Scale.

Strengths Use

Strengths Use Scale (SUS; Govindji & Linley, 2007)

The following questions ask you about your strengths, that is, the things that you are able to do well or do best. Please respond using a 1 (strongly disagree) to 7 (strongly agree) scale.

1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Neither Agree Nor Disagree, 5 = Slightly Agree, 6 = Agree, 7 = Strongly Agree.

1. I am regularly able to do what I do best
2. I always play to my strengths
3. I always try to use my strengths
4. I achieve what I want by using my strength
5. I use my strengths everyday
6. I use my strengths to get what I want out of life
7. My work gives me lots of opportunities to use my strengths
8. My life presents me with lots of different ways to use my strengths
9. Using my strengths comes naturally to me
10. I find it easy to use my strengths in the things I do
11. I am able to use my strengths in lots of different situations
12. Most of my time is spent doing the things that I am good at doing
13. Using my strengths is something I am familiar with
14. I am able to use my strengths in lots of different ways

Empowerment

College Student Empowerment Scales, Self-Efficacy/Control subscale (CSES; Back & Keys, 2020)

Please mark your level of agreement with the statements below.

1 = Strongly Disagree, 2 = Disagree, 3 = Somewhat Disagree, 4 = Somewhat Agree, 5 = Agree, 6 = Strongly Agree

1. I motivate myself to succeed in college.
2. I have a high level of autonomy in accomplishing my coursework.
3. I am always setting goals for myself in my education and working to achieve them.
4. I perform the necessary activities to succeed as a student.

Consent Form – Student Offices and Organizations

Title of Research Study: Contextual Predictors of Students' College Experience: A S-BIT of Work Perspective

Investigator Team Contact Information: Rhea Owens, Ph.D.

For questions about research appointments, the research study, research results, or other concerns, call the study team at:

Investigator Name: Rhea Owens Investigator Departmental Affiliation: Psychology Department Phone Number: 218-726-8592 Email Address: owensr@d.umn.edu	Student Investigator Name (if applicable): Hope Lindenfelser Phone Number: 763-913-9946 Email Address: linde813@d.umn.edu Study Staff (if applicable): Phone Number: Email Address:
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Supported By: This research is supported by the University of Minnesota Duluth.

Financial Interest Disclosure: The University of Minnesota Duluth and the research team are receiving no payments from other agencies, organizations, or companies to conduct this research study.

Key Information About This Research Study

The following is a short summary to help you decide whether or not to be a part of this research study. More detailed information is listed later on in this form.

What is research?

- The goal of research is to learn new things in order to help people in the future. Investigators learn things by following the same plan with a number of participants, so they do not usually make changes to the plan for individual research participants. You, as an individual, may or may not be helped by volunteering for a research study.

Why am I being invited to take part in this research study?

We are asking you to take part in this research study because you are currently an adult (18 years or older) U.S. undergraduate student. Therefore, you can help us understand the experience of undergraduate students and the environmental factors that play a role in the use of students' positive traits like hope, strengths, and empowerment.

What should I know about a research study?

- This research study will be explained to you.
- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part and later change your mind.

- Your decision will not be held against you.
- You can ask all the questions you want before you decide.

Why is this research being done?

The purpose of this research study is to gain a better understanding about how different environmental factors relate to individual characteristics like hope, strengths use, and empowerment among adult undergraduate students in the U.S. There is limited research examining the environmental factors that influence undergraduate students and their individual characteristics. This study will help address these gaps and add to our knowledge on these topics. The results of this study may be used to help inform future studies and university policies, as well as develop effective interventions.

How long will the research last?

Completion of the survey for this study will last approximately 15-20 minutes.

What will I need to do to participate?

You will complete questionnaires related to your experiences of being a student and your daily life, your college or university environment, your personal characteristics, and related variables.

More detailed information about the study procedures can be found under “What happens if I say yes, I want to be in this research?”

Is there any way that being in this study could be bad for me?

There may be some risk from being in this study. For example, you may experience frustration or other negative emotions when completing the survey. However, these risks are viewed as minimal and unlikely to cause you more discomfort than you are likely to experience in a typical day. If, however, you become upset by questions, you may stop at any time or choose not to answer specific questions.

Will being in this study help me in any way?

We cannot promise any benefits to you or others from your taking part in this research. However, by participating in the study, you may have the opportunity to reflect upon yourself and your experiences. We hope that, in the future, other people might benefit from this study by having a better understanding of how their undergraduate experience relates to their personal characteristics. The results of this study may eventually be used to develop interventions and inform university policies and procedures.

What happens if I do not want to be in this research?

There are no known alternatives, other than deciding not to participate in this research study.

Detailed Information About This Research Study

The following is more detailed information about this study in addition to the information listed above.

How many people will be studied?

Approximately 350 participants who meet inclusion criteria will be recruited to take part in this study. The primary inclusion criteria are that participants must be adults (18 years or older), attend a 2-year or 4-year college or university, and live in the United States.

What happens if I say “Yes, I want to be in this research”?

You will complete questionnaires during one time, which are available online. The questionnaires will measure your experiences related to being a student and daily life, your college or university environment, your personal characteristics, and related variables. The questionnaires are expected to take approximately 15-20 minutes. If you do not meet the primary inclusion criteria (i.e., not currently an adult undergraduate student in the U.S.), you will automatically be removed from the survey/study.

What happens if I say “Yes”, but I change my mind later?

While participating, you can leave the research study at any time and no one will be upset by your decision. If you terminate your participation in the study and do not want your data included in the analyses, you must contact the researchers upon immediate completion or withdrawal from the study. Your name will not be connected with your data upon analyses and in any report of the findings.

Will it cost me anything to participate in this research study?

There will be no cost to you for any of the study activities or procedures.

What happens to the information collected for the research?

Efforts will be made to limit the use and disclosure of your personal information, including research study records, to people who have a need to review this information. We cannot promise complete confidentiality. Organizations that may inspect and copy your information include the Institutional Review Board (IRB), the committee that provides ethical and regulatory oversight of research, and other representatives of this institution, including those that have responsibilities for monitoring or ensuring compliance. We may publish the results of this research. However, we will keep your name and other identifying information confidential.

What will be done with my data when this study is over?

We may use and share data for future research. They may be shared with researchers/institutions outside of the University of Minnesota. This could include for profit companies. We will not ask for your consent before using or sharing them. We will remove identifiers from your data, which means that nobody who works with them for future research will know who you are. Therefore, you will not receive any results or financial benefit from future research done on your data.

Whom do I contact if I have questions, concerns or feedback about my experience?

This research has been reviewed and approved by an IRB within the Human Research Protections Program (HRPP). To share feedback privately with the HRPP about your research experience, call the Research Participants' Advocate Line at [612-625-1650](tel:612-625-1650) (Toll Free: 1-888-224-8636) or go to https://umn.qualtrics.com/jfe/form/SV_d5Vfe8BNEf0aK6V. You are encouraged to contact the HRPP if:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research participant.
- You want to get information or provide input about this research.

Will I have a chance to provide feedback after the study is over?

The HRPP may ask you to complete a survey that asks about your experience as a research participant. You do not have to complete the survey if you do not want to. If you do choose to complete the survey, your responses will be anonymous.

If you are not asked to complete a survey, but you would like to share feedback, please contact the study team or the HRPP. See the “Investigator Contact Information” of this form for study team contact information and “Whom do I contact if I have questions, concerns or feedback about my experience?” of this form for HRPP contact information.

Will I be compensated for my participation?

If you fit the primary inclusion criteria for the study (i.e., currently an adult undergraduate student in the U.S.), you can elect to be entered into a drawing for one of 74 \$25 pre-paid debit cards (approximately 21% chance of winning). If you do not meet the primary inclusion criteria of being an adult undergraduate student in the U.S., you will automatically be removed from the survey/study and will not be eligible for the pre-paid debit card drawing.

If you are randomly selected as one of 74 winners, compensation will be made using a pre-paid debit card called Greenphire ClinCard. You may use this card at any store that accepts MasterCard or you can use a bank machine to remove cash. However, there may be fees drawn against the balance of the card for cash withdrawals (ATM use) and inactivity (no use for 3 months). We will give you the ClinCard Frequently Asked Questions information sheet that answers common questions about the debit card.

The debit card system is administered by an outside company. The company, Greenphire, will be given your name. They will use this information only as part of the payment system. Your information will not be used for any other purposes and will not be given or sold to any other company. Greenphire will not receive any information about your health status or the study in which you are participating.

Payment you receive as compensation for participation in research is considered taxable income. If payment to an individual equals or exceeds \$600 in any one calendar year, the University of Minnesota is required to report this information to the Internal Revenue Service (IRS). Research payments to study participants that equal or exceed \$600 during any calendar year will result in a FORM 1099 (Miscellaneous Income) being issued to you and a copy sent to the IRS.

Agreement:

By completing the survey, you are consenting to participate in this research and possess an understanding of the research study.

If you would like a copy of the consent form, please include your email address here and a copy will be emailed to you: _____

If you would like to be entered into the pre-paid debit card drawing, please include your email address here: _____

We will remove your email address from the data as soon as it is downloaded.

Consent Form – Psychology Classes

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For questions about research appointments, the research study, research results, or other concerns, call the study team at:

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What will I need to do to participate?

You will complete questionnaires related to your experiences of being a student and your daily life, your college or university environment, your personal characteristics, and related variables.

More detailed information about the study procedures can be found under “What happens if I say yes, I want to be in this research?”

Is there any way that being in this study could be bad for me?

There may be some risk from being in this study. For example, you may experience frustration or other negative emotions when completing the survey. However, these risks are viewed as minimal and unlikely to cause you more discomfort than you are likely to experience in a typical day. If, however, you become upset by questions, you may stop at any time or choose not to answer specific questions.

Will being in this study help me in any way?

We cannot promise any benefits to you or others from your taking part in this research. However, by participating in the study, you may have the opportunity to reflect upon yourself and your experiences. We hope that, in the future, other people might benefit from this study by having a better understanding of how their undergraduate experience relates to their personal characteristics. The results of this study may eventually be used to develop interventions and inform university policies and procedures.

What happens if I do not want to be in this research?

There are no known alternatives, other than deciding not to participate in this research study.

Detailed Information About This Research Study

The following is more detailed information about this study in addition to the information listed above.

How many people will be studied?

Approximately 350 participants who meet inclusion criteria will be recruited to take part in this study. The primary inclusion criteria are that participants must be adults (18 years or older), attend a 2-year or 4-year college or university, and live in the United States.

What happens if I say “Yes, I want to be in this research”?

You will complete questionnaires during one time, which are available online. The questionnaires will measure your experiences related to being a student and daily life, your college or university environment, your personal characteristics, and related variables. The questionnaires are expected to take approximately 15-20 minutes. If you do not meet the primary inclusion criteria (i.e., not currently an adult undergraduate student in the U.S.), you will automatically be removed from the survey/study.

What happens if I say “Yes”, but I change my mind later?

While participating, you can leave the research study at any time and no one will be upset by your decision. If you terminate your participation in the study and do not want your data included in the analyses, you must contact the researchers upon immediate completion or withdrawal from the study. Your name will not be connected with your data upon analyses and in any report of the findings.

Will it cost me anything to participate in this research study?

There will be no cost to you for any of the study activities or procedures.

What happens to the information collected for the research?

Efforts will be made to limit the use and disclosure of your personal information, including research study records, to people who have a need to review this information. We cannot promise complete confidentiality. Organizations that may inspect and copy your information include the Institutional Review Board (IRB), the committee that provides ethical and regulatory oversight of research, and other representatives of this institution, including those that have responsibilities for monitoring or ensuring compliance. We may publish the results of this research. However, we will keep your name and other identifying information confidential.

What will be done with my data when this study is over?

We may use and share data for future research. They may be shared with researchers/institutions outside of the University of Minnesota. This could include for profit companies. We will not ask for your consent before using or sharing them. We will remove identifiers from your data, which means that nobody who works with them for future research will know who you are. Therefore, you will not receive any results or financial benefit from future research done on your data.

Whom do I contact if I have questions, concerns or feedback about my experience?

This research has been reviewed and approved by an IRB within the Human Research Protections Program (HRPP). To share feedback privately with the HRPP about your research experience, call the Research Participants' Advocate Line at [612-625-1650](tel:612-625-1650) (Toll Free: 1-888-224-8636) or go to https://umn.qualtrics.com/jfe/form/SV_d5Vfe8BNEf0aK6V. You are encouraged to contact the HRPP if:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research participant.
- You want to get information or provide input about this research.

Will I have a chance to provide feedback after the study is over?

The HRPP may ask you to complete a survey that asks about your experience as a research participant. You do not have to complete the survey if you do not want to. If you do choose to complete the survey, your responses will be anonymous.

If you are not asked to complete a survey, but you would like to share feedback, please contact the study team or the HRPP. See the “Investigator Contact Information” of this form for study team contact information and “Whom do I contact if I have questions, concerns or feedback about my experience?” of this form for HRPP contact information.

Will I be compensated for my participation?

If you fit the primary inclusion criteria for the study (i.e., currently an adult undergraduate student in the U.S.), your instructor will provide extra credit for your participation in the study. The amount of extra credit will be up to the instructors’ discretion, and the amount will be communicated with you by your instructor prior to participating.

Agreement:

By completing the survey, you are consenting to participate in this research and possess an understanding of the research study.

If you would like a copy of the consent form, please include your email address here and a copy will be emailed to you: _____

We will remove your email address from the data as soon as it is downloaded.

Consent Form – Psychology Research Pool (SONA)

Title of Research Study: Contextual Predictors of Students' College Experience: A S-BIT of Work Perspective

Investigator Team Contact Information: Rhea Owens, Ph.D.

For questions about research appointments, the research study, research results, or other concerns, call the study team at:

Investigator Name: Rhea Owens Investigator Departmental Affiliation: Psychology Department Phone Number: 218-726-8592 Email Address: owensr@d.umn.edu	Student Investigator Name (if applicable): Hope Lindenfelser Phone Number: 763-913-9946 Email Address: linde813@d.umn.edu Study Staff (if applicable): Phone Number: Email Address:
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Supported By: This research is supported by the University of Minnesota Duluth.

Financial Interest Disclosure: The University of Minnesota Duluth and the research team are receiving no payments from other agencies, organizations, or companies to conduct this research study.

Key Information About This Research Study

The following is a short summary to help you decide whether or not to be a part of this research study. More detailed information is listed later on in this form.

What is research?

- The goal of research is to learn new things in order to help people in the future. Investigators learn things by following the same plan with a number of participants, so they do not usually make changes to the plan for individual research participants. You, as an individual, may or may not be helped by volunteering for a research study.

Why am I being invited to take part in this research study?

We are asking you to take part in this research study because you are currently an adult (18 years or older) U.S. undergraduate student. Therefore, you can help us understand the experience of undergraduate students and the environmental factors that play a role in the use of students' positive traits like hope, strengths, and empowerment.

What should I know about a research study?

- This research study will be explained to you.
- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part and later change your mind.

- Your decision will not be held against you.
- You can ask all the questions you want before you decide.

Why is this research being done?

The purpose of this research study is to gain a better understanding about how different environmental factors relate to individual characteristics like hope, strengths use, and empowerment among adult undergraduate students in the U.S. There is limited research examining the environmental factors that influence undergraduate students and their individual characteristics. This study will help address these gaps and add to our knowledge on these topics. The results of this study may be used to help inform future studies and university policies, as well as develop effective interventions.

How long will the research last?

Completion of the survey for this study will last approximately 15-20 minutes.

What will I need to do to participate?

You will complete questionnaires related to your experiences of being a student and your daily life, your college or university environment, your personal characteristics, and related variables.

More detailed information about the study procedures can be found under “What happens if I say yes, I want to be in this research?”

Is there any way that being in this study could be bad for me?

There may be some risk from being in this study. For example, you may experience frustration or other negative emotions when completing the survey. However, these risks are viewed as minimal and unlikely to cause you more discomfort than you are likely to experience in a typical day. If, however, you become upset by questions, you may stop at any time or choose not to answer specific questions.

Will being in this study help me in any way?

We cannot promise any benefits to you or others from your taking part in this research. However, by participating in the study, you may have the opportunity to reflect upon yourself and your experiences. We hope that, in the future, other people might benefit from this study by having a better understanding of how their undergraduate experience relates to their personal characteristics. The results of this study may eventually be used to develop interventions and inform university policies and procedures.

What happens if I do not want to be in this research?

There are no known alternatives, other than deciding not to participate in this research study.

Detailed Information About This Research Study

The following is more detailed information about this study in addition to the information listed above.

How many people will be studied?

Approximately 350 participants who meet inclusion criteria will be recruited to take part in this study. The primary inclusion criteria are that participants must be adults (18 years or older), attend a 2-year or 4-year college or university, and live in the United States.

What happens if I say “Yes, I want to be in this research”?

You will complete questionnaires during one time, which are available online. The questionnaires will measure your experiences related to being a student and daily life, your college or university environment, your personal characteristics, and related variables. The questionnaires are expected to take approximately 15-20 minutes. If you do not meet the primary inclusion criteria (i.e., not currently an adult undergraduate student in the U.S.), you will automatically be removed from the survey/study.

What happens if I say “Yes”, but I change my mind later?

While participating, you can leave the research study at any time and no one will be upset by your decision. If you terminate your participation in the study and do not want your data included in the analyses, you must contact the researchers upon immediate completion or withdrawal from the study. Your name will not be connected with your data upon analyses and in any report of the findings.

Will it cost me anything to participate in this research study?

There will be no cost to you for any of the study activities or procedures.

What happens to the information collected for the research?

Efforts will be made to limit the use and disclosure of your personal information, including research study records, to people who have a need to review this information. We cannot promise complete confidentiality. Organizations that may inspect and copy your information include the Institutional Review Board (IRB), the committee that provides ethical and regulatory oversight of research, and other representatives of this institution, including those that have responsibilities for monitoring or ensuring compliance. We may publish the results of this research. However, we will keep your name and other identifying information confidential.

What will be done with my data when this study is over?

We may use and share data for future research. They may be shared with researchers/institutions outside of the University of Minnesota. This could include for profit companies. We will not ask for your consent before using or sharing them. We will remove identifiers from your data, which means that nobody who works with them for future research will know who you are. Therefore, you will not receive any results or financial benefit from future research done on your data.

Whom do I contact if I have questions, concerns or feedback about my experience?

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- You have questions about your rights as a research participant.
- You want to get information or provide input about this research.

Will I have a chance to provide feedback after the study is over?

The HRPP may ask you to complete a survey that asks about your experience as a research participant. You do not have to complete the survey if you do not want to. If you do choose to complete the survey, your responses will be anonymous.

If you are not asked to complete a survey, but you would like to share feedback, please contact the study team or the HRPP. See the “Investigator Contact Information” of this form for study team contact information and “Whom do I contact if I have questions, concerns or feedback about my experience?” of this form for HRPP contact information.

Will I be compensated for my participation?

If you fit the primary inclusion criteria for the study (i.e., currently an adult undergraduate student in the U.S.), you can receive 0.5 SONA credits for your participation in the study through participating classes. If you have questions about whether or not your class will count the credit, please ask your instructor prior to participating.

Agreement:

By completing the survey, you are consenting to participate in this research and possess an understanding of the research study.

If you would like a copy of the consent form, please include your email address here and a copy will be emailed to you: _____

We will remove your email address from the data as soon as it is downloaded.