

Benefits of Mindfulness on African American Stress Levels and Success

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Abstract

The purpose of this study is to test the theory of motivation that relates mindfulness to the stress levels, and academic success of African-American students, controlling for maturity for 61 participants at Clark Atlanta University. Academic success is operationally defined by semester grade point averages (GPA) during both midterm, and final weeks. Past research on Mindfulness indicated that mindfulness-based interventions can help decrease substance dependency in response to negative emotional states. This study is unique because it focuses on African-Americans seeking higher education with life stressors, whereas most studies conducted on mindfulness focus on wider populations, or only on African-Americans who abuse substances as an emotional coping mechanism. This particular study allowed the student principle investigator to collect data intentionally from current students at historically Black colleges and universities (HBCUs). The hypotheses indicated (1) There would be a significant relationship between mindfulness, perceived stress level, and academic confidence; and (2) The expectation for mindfulness and stress to predict academic confidence. Participants were openly given the option to participate in the study. The data collection method included distributions of a Perceived Stress Scale (PSS) survey, Academic Self-Efficacy Scale, & Five Facet Mindfulness Questionnaires observing levels of participants' daily mindfulness. Surveys were administered by the student principal investigator via online access. Results indicated that intentionally mindful participants were more moderate in their stress levels, and feel more emotionally equip when handling unexpected events. Implications of the results for future studies include exposure to intentional practices of mindfulness to improve academic success and stress management. Self-efficacy scales can also be administered at the beginning of participants' semesters in order to attest for academic motivations, attitudes, and achievement. This study's results can contribute to the fields of positive psychology and education, initiating positive change as an alternative coping mechanism for African-American college students with high stressors and stress levels.

Keywords: Systemic Oppression, Tenacity, Academic Success

1. Literature Review

1.1 Effects Of Environment On Mental Health Among African-American College Students

This review acknowledges academic performances of the individuals in certain studies, both before and after Mindfulness or Mindfulness Based Stress Reduction (MBSR). When examining the relationship between stress and academic confidence¹⁴, we notice that anxiety, depression, hopelessness, poor health behaviours, sleep disturbances and other adverse outcomes have been linked with high levels of distress among college students (p.569). Still, the distresses aforementioned primarily considers those that occur in an academic space. Oman's study recognized the need for effective approaches to manage stress in undergraduate college students. Investigators hypothesized that levels of perceived stress would decline if participants were trained. While these studies are both valid and helpful,

the need for conducting research intentionally on the most marginalized of groups is where particular attention is placed in this research. This study considers the added impact of environmental distress on this groups' academic success.

With this in mind, the purpose of this literature review serves to provide examples of how mindfulness affects the academic performance of College enrolled trauma victims from low-income communities. Dr. Bell similarly takes note in her study that, few studies to our knowledge to date have been conducted on mindfulness in African-Americans, and little research has focused on the psychological and physiological effects of mindfulness on African-Americans attending a HBCU. The same is true for those residing in distressed neighborhoods in the Deep South⁴. This literature review examines studies conducted on the community, education, and home environment factors that contribute to stress in low-income and low socioeconomic neighborhoods. It examines literature that has reviewed the positive effects of mindfulness on the mental health, and ability, of individuals with high stressors to be emotionally equipped. Researchers like Dr. Bell affirm that meditation-related activation in the cortical regions, was related to anxiety relief. Thus, these findings confirm that mindfulness meditation alleviates anxiety through neural mechanisms related to self-referential thoughts⁴.

When considering the residual effects of racism, white-supremacy, and systemic oppressions on African-American's mental health and psyche, this study is intended to validate mindfulness as a holistic avenue for college students who suffer from light symptoms of a range of the following disorders: Posttraumatic Slave Syndrome, Posttraumatic Stress Disorder (PTSD), Acute Stress Disorder, Adjustment Disorder, and other Specified or Unspecified Trauma and Stressor Related Disorders as diagnosed by the Diagnostic and Statistical Manual of Mental Disorders (DSM-V). If a trauma is severe enough it can distort our attitudes and beliefs. Such distortions often result in dysfunctional behaviors, which can in turn produce unwanted consequences⁸ like the inability to be mentally present in class lectures (Aware), or focus long enough to notice or interpret the important vocal tones (Observe) an instructor uses to express the process of a mathematical concept.

PTSD symptoms that limit social interactions on a level of peer assistance, may be triggered and begin after repeated exposure to traumatic events¹; at times, resurfacing in interactions with college peers who are unaware of triggers. Many of these details are constantly found in those same low-income communities through, for example, the violent deaths of immediate and extended family members. Some studies find that job inaccessibility, economic deprivation, and social isolation have profound effect on Black homicide offending¹⁵. These factors are all largely found in communities of low SES. Using a criminological approach to their study, the researchers¹⁵ noted that black homicide rates were higher in cities where the black population had high rates of depleted resources and social isolation. This isolation Blacks are confronted with, was highly correlated to the poverty, unemployment, economic marginalization, and family instability in these communities.

Amongst the community and home environment factors that thrive in low-income communities, yet another layer of stress is present from youth, revealing itself in the form of educational systems. Researchers⁹ contend that "The overrepresentation of ethnic minority students, particularly African-American males, in the exclusionary discipline consequences of suspension and expulsion is not a new finding" (p.540). Now, considering this, along with the placement of authoritative teachers who display the characteristics of individuals who are not fond of children, DeGruy⁸ argues that personal relationships are important, and that the most effective motivator for Black children is love. In her collective studies of children's learning techniques, Dr. DeGruy⁸ goes on to speak of a relationship-based approach to education, in which at the heart of its culturally-based model, is the formation of relationships which are critical for the academic success of both African-American and Hispanic-American students. Unfortunately, the author⁶ contends, the experiences of African-American children entering elementary, middle, or high schools are far from positive. If these aspects are not so much as considered in the structure of educational systems, how then, are African-Americans taught academic confidence? Versus looking at mindfulness solely as an intervention for trauma, the selections of literature in this study are geared toward also connecting the need for mindfulness as an intervention for stress, as it relates to academic success through confidence.

There has been an increase the number of police presence, new laws, and children referrals to law enforcement authorities for school code violations in several districts since 1990¹⁶. These changes have resulted in an increase in emotional assault against students even before they ever enter the education environment⁸. Pairing more than 10 years in grade school education systems whose techniques do not accommodate the learning styles of its students, with oppressions occurring both in the home and community environments of these students, creates a unique level of stress disorders that are overlooked. With a range of etiologies, many times these disorders are "treated" with their own tenacious efforts to seek higher education. Still, this formula leaves an overwhelming amount of these students more apt to a learned academic helplessness throughout their educational journey – not confidence.

In relation to high frequency exposure to the traumas existing within these same communities of low SES, specifically communities of color, Mindfulness, through awareness and observation of the senses, is a valid method of increasing the academic confidence necessary for academic success.

1.2 Consequences Of Low SES Stressors On Academic Confidence

According to the American Psychological Association², psychological distress has been the result of factors such as socioeconomic deprivation and racial discrimination. Many of the students at HBCUs, although from different geographical backgrounds, either share similar SES, or are personally familiar with the distresses that thrive in these low-income communities. College campuses and institutions serve as a melting pot, where individuals from various paths of life, raised around and with various disorders, meet on common grounds. These students are more often aware of what Robert Cherry⁵ states, that "...black men are more likely to be exposed to an oppositional street culture – one that endorses violence as a means of conflict resolution, [and] also contributes to a social environment where firearm violence is more common" (para 9). In his article⁴, the sociological observation was also noted that "...even though it violated their own personal beliefs in conventional norms – in order to deter the aggressive overtures of other youths in their neighborhood" (para 11), black men were likely to engage in violent activities essentially as a means of survival. A constant choice that creates dissonance, and a repeated exposure to the details of traumatic events.

As a result of this likeliness, the trauma related stress disorders found in communities with low SES are also high. Unfortunately, however, there is a largely disproportionate number of students and faculty who are globally privileged to ignore this reality, and may in turn trigger episodes during interactions with students of these backgrounds. The importance of faculty to be sensitive to these matters, and accommodate their students is a key factor in promoting academic success. Researchers¹⁰ argue that strong relationships with faculty are important for student success and that faculty-student relationships are positively correlated with student achievement, satisfaction and retention in college.

This study of Mindfulness fills a major gap in research in that it searches to find the bridging link between academic confidence, perceived stress of life stressors, and mindfulness. The study views mindfulness as an intervention method for poor academic performances that are due to high stress levels, and as an opportunity to build academic resiliency amongst African-Americans seeking higher education. One study recognizes that there has been extensive research on mindfulness in European and White Americans, but not on African-Americans in higher education⁴. In regard to this study, mindfulness is used to identify five key factors that affect academic confidence, and monitor the stress levels caused by socioeconomic deprivation, racial discrimination and/or oppression on a systemic level. Monitoring these stress levels through mindfulness could prove to increase academic performance. As McKay and Doverspike¹³ mention in their study on African-Americans' test-taking attitudes and performance, African-American test takers specially should learn strategies on handling stress – especially if stereotype threat is associated with greater anxiety among African-American test takers. Meaning that all African-American students, **even college students who do not share backgrounds of low-income communities but are still victims of racism, white-supremacy, and other forms of systemic injustices**, can benefit from practicing mindfulness. African-Americans, more privileged or less, should be intentionally taught mindfulness, and in a way that is geared toward academic confidence. Researchers^{6,11} show how MBSR affects stress levels of healthy people, and found that this strategy is able to reduce stress levels in general⁶.

2. Methodology

2.1 Participants

A power analysis to detect these relationships was calculated using an effect size of .38 and power of .80 resulting in the required sample size ($n = 61$). The hypotheses tested considered the abilities of mindfulness to increase academic confidence and success, through lowering the way these students perceived their stress; especially when practicing mindful behaviors. Academic Confidence was operationalized through a survey measuring Academic -confidence. This survey allowed the student principal investigator to gauge the effects of mindfulness or a lack thereof, on both the stress levels and academic confidence of 61 participants (Figure 1). The statistics of these participants focused primarily on gender, age, and classification.

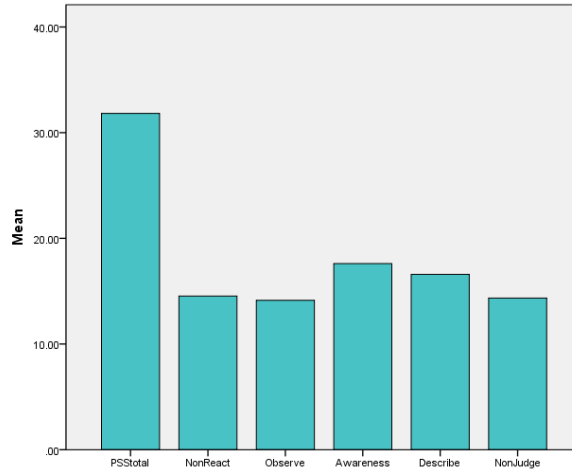


Figure 1. Data represented with mean averages for both mindfulness and perceived stress results

The figure displays the mean scores of 2/3 surveys used to operationalize this study. The mean of each individual facet of mindfulness is depicted in the graph

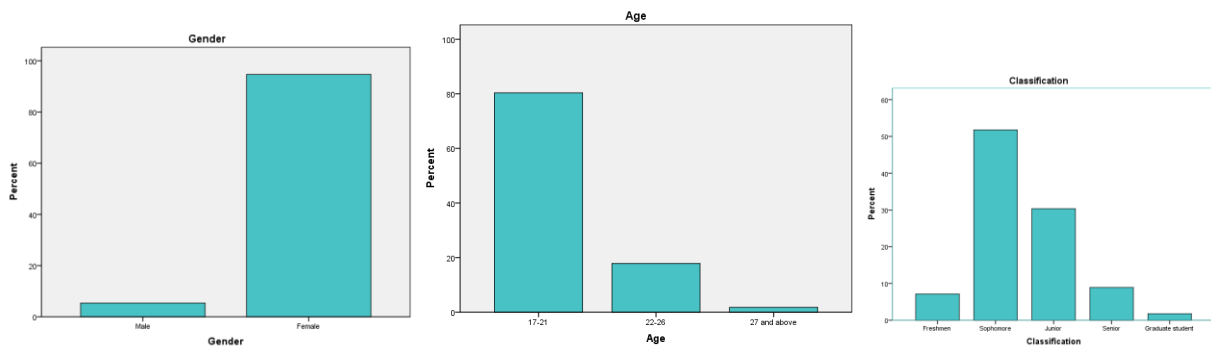


Figure 2. Data representation of participants used in the study

The figure represents the focal range of participants for this study. Participants with higher age and higher classifications would, in future studies, be examined on whether their maturity better aligned with mindful practices.

2.2 Measures

Materials used in this study consisted largely of the three surveys data was collected from. A Perceived Stress Scale (PSS) survey⁷, Academic Self-confidence Scale¹², and Five Facet Mindfulness Questionnaire³ were administered. These surveys were administered through the online use of a survey creation site. Of the likert type scales used, the 5 Facet Mindfulness Questionnaire (FFMQ) attested for 5 factors of mindfulness, including Observe, Aware, Non-Judgement, Describe, and NonReactive. Questions included in the survey were of the following nature: “I am good at finding the words to describe my feelings” (Describe/Mindfulness), “I find it difficult to stay focused on what’s happening in the present moment” (Aware/Mindfulness), “In the last month, how often have you found that you could not cope with all the things you had to do” (Perceived Stress), “How confident are you that you have been getting the grades that you want” (academic self-confidence), etc.

The Cronbach’s alpha from the item analyses showed a reliability of .911. Results indicated significant differences in data retrieved.

2.3 Procedure

This study was conducted in various environments, many of which were from the comfort of participants' homes near the college campus site. Verbal interactions with participants generally included gaining the individual's participation, a breakdown of the instructions that were listed before each survey, and a simple overview of the goals of the study. The three surveys were arranged in sections on Qualtrics. Individuals were able to access to the Qualtrics survey through an online link, provided by the student principal investigator. The online survey included an irb approved consent form which the volunteers read prior to proceeding to the surveys. Participants were asked to provide their consent after reading the consent form. Participants who did not consent were taken to the end of the survey and thanked. Participants who consented proceeded to the surveys but could stop participating at any time if they wished. Surveys were often given as extra credit in some classes, which helped increase participation levels. Data information was then assessed using the instructions provided with each questionnaire, calculated using SPSS tools, retrieving statistical and graphed data.

3. Results

Of the 52 participants that completed the surveys, a regression was computed with academic confidence as the dependent variable and the perceived stress and mindfulness factors as the predictors. Results of the stepwise regression indicated that Perceived Stress and the Factor related to Observe on the mindfulness scale significantly predicted Academic Confidence, (Academic Confidence = $-2.0(\text{Perceived Stress})X + 6.64 (\text{Observe}) + 121.335$ (Constant)). The results are depicted in Figure 3. A correlational analyses conducted on the data revealed significant negative relationship between the mindfulness facet of Awareness, and the Perceived Stress. In addition, the Observe facet of mindfulness was significantly and positively correlated with academic confidence. See Table 1.

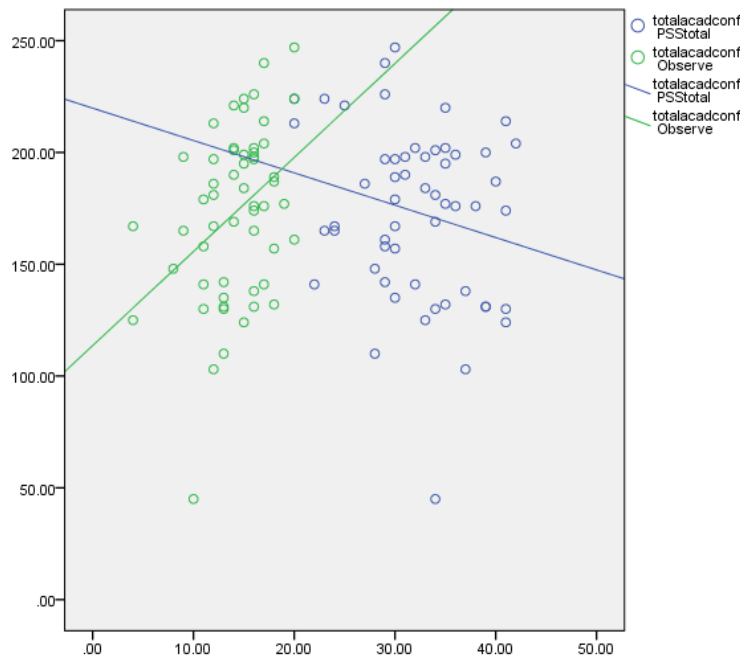


Figure 3. Scatter plot correlations for academic confidence and perceived stress, based on the observe facet of mindfulness

Table 1. Correlational analyses: Academic confidence, perceived stress, and facets of mindfulness

Variables	Observe	Awareness	Non Reactive	Describe	Non-Judging
Academic Self Confidence					
Pearson Correlation	.378**	.179	.217	.240	-.125
Significance	.004	.195	.112	.080	.369
N	55	54	54	54	54
Perceived Stress					
Pearson Correlation	.244	-.340**	-.144	.005	-.057
Significance	.073	.012	.293	.973	.683
N	55	54	55	54	54

4. Discussion

First, this study suggests that there is strong importance to conduct mindfulness based research solely on the African-American population. Previous studies of mindfulness as it relates to African-American populations, reveal a primary focus on African-American's in negative situations. For example, these studies focus on African-Americans who use substances as an emotional coping mechanism; or those are who incarcerated and dealing with mental disorders/distress. This particular study recognizes that the population is not homogenous. Particular attention is placed in research that focuses on the sub-segments of the African-American population, specifically those that are enrolled in higher education, and provides data collected from those specifically attending HBCUs.

Secondly, the study provides literature on contributors to psychological distresses in low SES communities; separately, providing literature on the relation of the distresses to academic confidence. One of the limitations and weaknesses of this study included the inability to conduct a longitudinal design study on individuals, that records academic success as GPA, over at least a three-year matriculation period. This study examined the links between the influence of mindfulness, academic success, and stress levels of African-American collegiate students. The study looks to examine individuals who are more likely to be victims of diagnosable stress related disorders caused by oppressive and systemic disadvantages. All Americans suffering from Posttraumatic Slave Syndrome are also a large underlying focus in the cohabitation covered in this study. The major concept of Posttraumatic Slave Syndrome examined considers slaves' attitudes and behaviors that were adapted simply to survive, and looks through a historical lens to identify both the adaptations that still limit African-Americans, and those that make African-Americans stronger⁸. With this in mind, Mindfulness as represented through the Observe and Aware facets of the FFMQ has been questioned and supported to show strong correlations with how individuals perceive stress, and how academically confident they are. This confidence has been reported to additionally lead to academic success.

Results of the data implies an analysis that the Awareness facet of mindfulness lowers perceived stress, and the observe facet of Mindfulness does lead to heightened academic confidence in African-American college students. Academic confidence was best predicted by lower levels of perceived stress and the use of the observe facet of mindfulness. This confidence eventually contributes to the academic success of these students, as well as to an increase in higher levels of self-efficacy in performance. These results could be due to the ability of an individual to be mentally present and aware in classroom lessons, as well as *during* classroom exams. Effective communication with peers is an additional factor that potentially contributes to academic success. Communicating while observing the senses enough to discern which peers are more likely to trigger episodes, and which are likely to contribute to progressive learning styles is also key. However, this communication is often altogether avoided with victims of trauma related stress disorder. Awareness is recognized in this study as attention/attentiveness. Results indicated that participants scoring higher in awareness and observe facets of mindfulness were more likely to have higher academic confidence. These results answer directly the potential question of what characteristics of someone's personality strengthens resiliency? Future implications could also seek to answer the question, "are there steps in mindfulness that can be taken to increase resiliency in individuals with lower levels of resiliency?"

To conclude, further improvements of these results could include a longitudinal implementation of mindful practices in the participants involved in the study (i.e., a control group), as well as a cross sequential implementation. Provision of a credited course on mindful practices that would include yoga and different styles of mindfulness, offered for scholars studying Psychology, Kinesiology, Biology, and other STEAM subjects, would help alleviate the external

stressors that plague college level students. This alleviation can occur through the introduction of coping mechanisms used to reduce these issues, and encourage resiliency in scholars' academic careers, as well as enhance self-efficacy.

5. Acknowledgements

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