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## Mental Health and Coping Habits of Young Black Men in STEM at an HBCU

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# Mental Health and Coping Habits of Young Black Men in STEM at an HBCU

## Cover Page Footnote

Faculty Advisor: Dr. Shearon Roberts

## Mental Health and Coping Habits of Young Black Men in STEM at an HBCU

Chamberlain Newman

### **Introduction**

In 2020, there was a global pandemic that affected the lives of many. The pandemic had negative effects on economies, industries, and the mental health of millions. However, the pandemic brought forth innovation to industries and people's livelihoods by increasing the dependence on Science, Technology, Engineering, and Math fields within society. As the human population is increasingly becoming more diverse, many STEM fields are attempting to increase underrepresentation. Yet after more calls for diversity following George Floyd's death in 2020, many STEM fields are still struggling with diversity.

As reported by the Pew Research Center in 2021, Black workers only made up 9% of all STEM workers. This low percentage of Black workers did not increase for 5 years leading up to 2021, as highlighted in this report. The Pew Research Center even found that Black adults make up a lower percentage of the STEM workforce than they make up of the United States adult population. According to a report by the National Science Foundation in 2015, Black men only made up 3.2% of science and engineering workers, while their white counterparts made up 49%. As stated in an Association of American Medical College (AAMC) news article, the number of Black male physicians is less than 3%. Such data highlights the scarcity of Black men within STEM fields.

Many Black men are often the only ones or among a small group of folks in their fields, which frequently comes with the unique pressure of having to perform and represent an entire group of people.

According to Fry et al. (2021), the overall number of STEM graduates increased from 2010 to 2021. However, in 2018, Black students only earned 7% of STEM bachelor's degrees (Fry et al., 2021). According to the study, the percentage of Black students who earned master's degrees was even lower. Such data illustrates how Black men are isolated in STEM both in the workforce and on college campuses. Aspects of diversity and inclusion efforts to increase underrepresented groups in STEM fields is to account for all the factors for why different groups are able or unable to persist through career paths. Mental and psychological support is often an area that is not thoroughly studied as much as economic and social factors for why fields such as STEM remain underrepresented.

Then the addition of a once-in-a-century pandemic adds to the types of constraints marginalized groups must overcome. I aim to look at mental health in a post-pandemic context around Black men pursuing STEM education in college. Such findings may prove useful in the quest to increase diversity in STEM fields.

### **Literature Review**

The objective of this paper is to determine potential coping mechanisms for black male college students in Science, Technology, Engineering, and Math (STEM) education to alleviate stress and promote mental wellness. Also, this paper will analyze the effects of the pursuit of a STEM degree for black men on a historically Black university (HBCU) campus. Previous studies have analyzed the coping strategies of young black men. Studies have explored the mental health of young black students pursuing a STEM degree. Studies have also examined student life on HBCU campuses for black men in comparison to predominately white institutions (PWIs). However, there have been limited prior data on sound approaches to promoting mental wellness

among young black men in pursuit of a STEM degree on an HBCU campus. To lay the groundwork for such a study, it is imperative to note the findings of previous literature in relation to how a specific demographic group copes in a high-stress academic discipline.

When a person is physically ill, it is logical for them to seek a doctor. When a person is mentally struggling, it is logical for them to seek counseling, therapy, or an outlet to express their struggles. However, studies on the mental health of young black men, in general, show a very low tendency of seeking out professional help. Black men are uniquely subjected to numerous stressors of society, such as systematic racism and hegemonic masculinity. Such stressors may cause mental anguish and depression. For many black men, communing with healthcare professionals proves to be an additional stressor. Studies have shown that black men are unlikely to seek medical assistance for any ailment, including depression, unless significant physical harm was inflicted on them, such as being shot or stabbed (Hudson et al., 2018).

Hudson et al.'s study on black males and how they managed depression revealed key information. Several participants in this study were willing to seek out assistance in managing depression. Most African American men in this focus group study considered depression “a debilitating problem and were supportive of depression treatment” (Hudson et al., 2018, pp. 133). Men in this study were unlikely to seek medical treatment unless they were “shot or stabbed” (Hudson et al., 2018, pp. 133). Although there are increasing efforts to integrate “behavioral health care into primary care settings,” many African American men do not “regularly engage with the medical system” (Hudson et al., 2018, pp. 133). Many Black men identify “norms of masculinity, mistrust of the medical system, and affordability of care as serious barriers to seeking depression treatment” (Hudson et al., 2018, pp. 133). The researchers

recommended that it is important that affordable services are made readily available to help alleviate barriers to treatment.

Goodwill et al. (2018) noted the complex components that serve as stressors for Black men in college. Goodwill's studies illustrated a common theme within literature on mental health and coping mechanisms of young Black men, particularly college men. Many young Black men cope with stressors well through discussion with their "social networks and engaging in physical activities" (Goodwill et al., 2018, pp. 538). However, when their stressors go unaddressed, levels of substance use, violence, and anger increase. For this reason, researchers believe it is imperative that Black men are in an environment where they are comfortable expressing their struggles, whether that be to faculty or fellow students. Such environmental conditions are heavily influenced by institution type. Goodwill's results are conflicting in relation to students' social networks and satisfaction at HBCUs compared to PWIs. However, a study published in the *American Journal of Men's Health* (Barry et al., 2017) showed that Black men at PWIs reported significantly greater levels of alcohol consumption and mental health conditions. Studies in the future should continue to track such findings to examine why Black men report greater alcohol consumption than Black men attending minority institutions.

Regardless of institution type, Goodwill et al., 2018 listed other stressors to Black men such as, "being a first-generation college student, having negative interactions with nonethnic minority-group faculty, and experiencing racial discrimination on campus" (Goodwill et al., 2018, pp. 539). In addition to such stressors, there are several barriers to behavioral health care for young Black men. Watkins et al. (2020) described such barriers as conventional definitions of mental health, manhood, and social support. His 2020 article reported findings from a 2017 Young Black Men, Masculinities, and Mental Health (YBMen) project, "a social media-based,

psychoeducational program that promotes mental health, progressive definitions of manhood, and sustainable social support for Black men” (Watkins et. al., 2020, pp. 1). His findings brought to light the need for behavioral health promotion interventions specifically designed for young Black men. Although there may be challenges in engaging Black men in person, social media may be a favorable option. Using social media to promote mental awareness, masculinity discussions, and increase social support may be effective as social media is already part of the daily lives of many young Black men.

Another common stressor for Black college students is employment because they “often need to work” to cover the costs of attendance (Goodwill et al., 2018, pp. 539). Goodwill notes that the added responsibility of working to support not only oneself but also one’s immediate and extended family members might contribute to adverse psychosocial health outcomes for Black college students who are simultaneously learning to navigate the rigorous academic demands of their college experiences.

### Black Young Men in Stem Degree Programs

Fries-Britt and White-Lewis (2020) conducted a study analyzing the bonds formed between Black male students and faculty and their subsequent effects on the students. In her study, Black men aspired to develop deeper relationships with faculty beyond the typical academic connections to affirm their academic ability. Her study showed that faculty support can be a crucial determinant in Black men’s retention in STEM disciplines. Fries-Britt and White-Lewis noted that faculty at HBCUs often make a commitment to centering the needs of students over their own needs, which strongly contributes to student success. Faculty that affirm a student’s abilities may better earn their student’s trust. Such trust can lead to a more personal

relationship, which has been shown to improve academic outcomes in STEM for young Black men. Sound relationships between faculty and Black male students also improve the mental health conditions of young Black men. It is essential that faculty address students as people first.

Further development of such relationships can lead to the mentorship of young Black students by faculty. Atkins et al., 2020 found that mentorship for STEM students significantly influenced scientific identity. In Atkins' study, the role of students within the scientific community was shaped by their mentoring experiences. Mentoring especially from Black males to Black males may have a positive effect on STEM retention and mental health for young Black men in STEM. Mentorship may also improve the confidence levels of Black male students in STEM.

A 2017 article by Fries-Britt highlighted 15 Black male students' perceptions of stereotypes they face in STEM at their PWIs. The stereotypes experienced by many Black male students in STEM further reinforce the importance of building confidence and healthy social environments for them. As pointed out by Fries-Britt, the responsibility to alleviate the effects of racial stereotypes should not fall on the students. Such systemic issues must be resolved by institutions and their leadership. It is crucial to understand the culture of young Black men within STEM degree programs. HBCUs are often considered the institutions with the most enriched levels of Black culture.

### Young Black Students and the HBCU Environment

Brown and Sacco-Bene (2018) found that faculty at HBCU campuses went above and beyond to support their Black male students. Faculty at HBCU campuses engage with Black male students both inside and outside the classroom. Brown and Sacco-Bene noted that



engagement, interactions, and support from institutional agents at HBCUs nourish young Black males both academically and personally. HBCUs combine psychosocial and structural factors to encourage young Black males to succeed. Such encouragement can be vital to the mental stability and academic success of Black male students. From the arts and sciences to the extracurriculars, HBCUs create cultures that meet the emotional needs of many young Black men.

Johnson and McGowan's study (2017) highlighted the effect of racial stereotypes among members of the Black community towards Black men and education. Johnson and McGowan pointed out how academic excellence is looked upon as "acting White." Additionally, high-achieving Black men can sometimes experience a sense of social and cultural isolation as they are often one of the few Black students in their upper-level STEM courses at PWIs. Many Black men dedicated to academic achievement at PWIs must fight pressures from outside communities as well as their own. In Johnson and McGowan's study, participants attending HBCUs did not report having to deal with such struggles.

Strayhorn (2017) found that students, on average, tend to pay less to attend HBCUs than PWIs. As touched on earlier, the financial burden involved in the pursuit of education can be a significant stressor for many young Black men. Strayhorn's study also detailed how some Black men at HBCUs indicated that they expected to use their education to improve their own lives. HBCUs highlight the importance of serving underserved communities. As poverty disproportionately affects the Black community, attending an institution that stresses the nourishment of such communities can prove important for creating emotional satisfaction and mental wellness among Black male students.

### **Research Questions**

Based on the literature above, this study aimed to answer the following research questions.

RQ1: What factors impact the mental well-being of Black males who pursue STEM degrees?

RQ2: How important is the HBCU environment in supporting Black males in pursuit of STEM degrees?

RQ3: How do Black males in college cope with stress?

RQ4: How did the pandemic affect the mental health of Black males in STEM?

## **Methods**

### **Sample**

I collected data from 43 Black male students majoring in STEM at a New Orleans HBCU. The age of students in this sample ranged from 18-22 years old. The majority were born or raised in the southern region of the United States (prevalent hometowns were Atlanta, Georgia and New Orleans, Louisiana). Participants were contacted via social media, text, and in-person interaction. The students were given electronic surveys to fill out via a Google form. The surveys were distributed in the months of September and October 2022 (from September 28th through October 14th).

### **Procedure**

The data was collected through my survey of 36 descriptive and open-ended questions. The respondents were recruited through an organizational members list and one-on-one randomly at different locations frequented by African American male students. The students were selected to complete the survey after they confirmed that they were STEM majors attending an HBCU.

I asked a combination of multiple-choice questions and open-ended questions. Some questions were quantitative, such as how many male siblings you have, how many hours a week you work to support yourself, etc. Other questions were qualitative, such as how the pandemic affected your well-being and mental health.

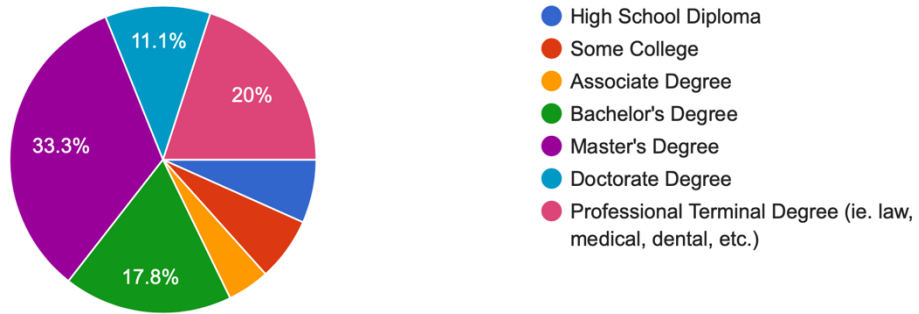
### **Variables**

I collected descriptive data on the socioeconomic background of participants. I collected data on age and hometown. I also collected data on the social life of participants on campus regarding how they socially identified themselves and their level of extracurricular involvement. I also collected data on the impact of the HBCU environment (peers and faculty) on their pursuit of a STEM degree. I also assessed if these participants were ever one of few Black men in their high school classes and if they graduated from predominately white schools.

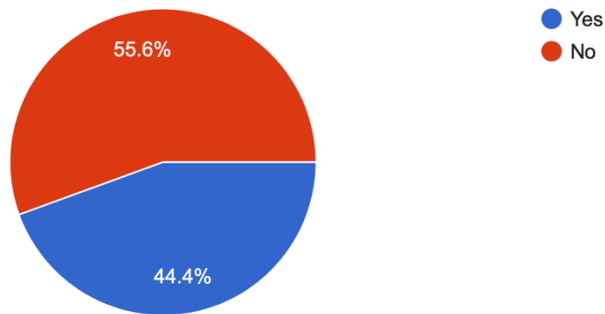
### **Results**

A total of 45 STEM majors at a New Orleans HBCU participated in the study. Participants ranged from ages 18-22 years old, with about 46% being 19 years old, and about 22% being 20 years old. More than half of the students in this sample had male siblings, most of which were younger male siblings. For most participants, the highest degree held by either parent was a bachelor's or master's degree. About 11% of students had at least one parent with a doctorate degree, and 20% of students had at least one parent with a professional terminal degree (i.e., law, medical, dental, etc.). About 46% of participants were sophomores, and the rest of the students were evenly divided up amongst other classifications, such as freshman, junior, and senior, at about 17%. Most students (56%) within this sample did not graduate from a predominately white high school. Approximately 82% of students in this sample rated

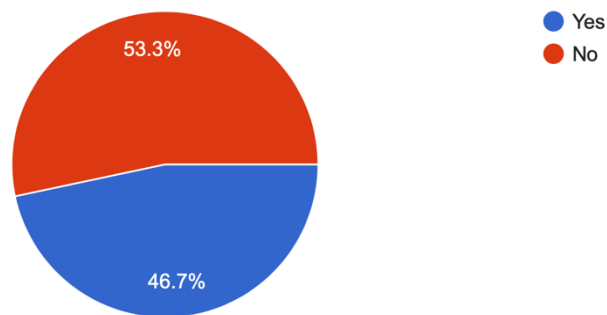
themselves as “A” students based on their average academic performance during high school. Roughly 62% of these students rated themselves as “B” students, and about 29% rated themselves as “A” students based on their typical academic performance in their college courses.



**Figure 1.** Highest education attained by parents of Black male STEM students in the study.



**Figure 2.** Percentage of students who graduated from a predominantly white high school.



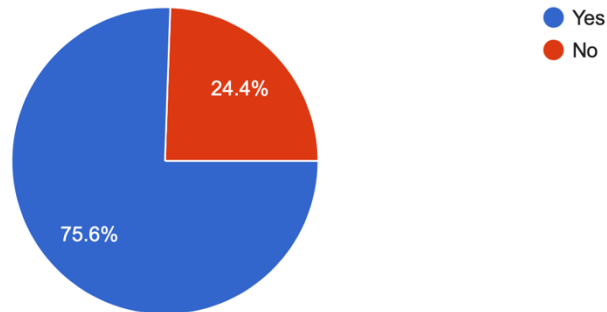
**Figure 3.** Percentage of students who were the only Black male (or one of few) in any of their high school classes.

RQ1: What factors impact the mental well-being of Black males who pursue STEM degrees?

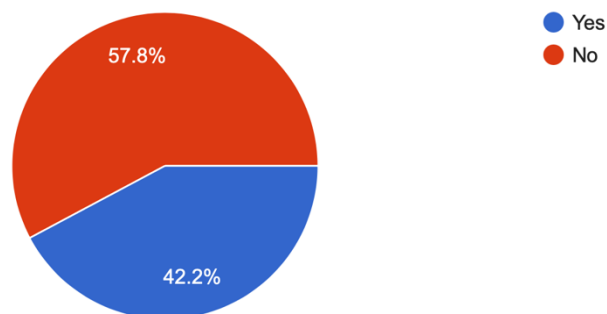
One of the factors that likely impacts the mental health of Black males who pursue STEM degrees could include whether they grew up in a two-parent household. Over 75% of students in this sample grew up in a two-parent household. However, most students (about 57%) did not have any parents who worked in STEM. About 47% of participants in this sample must work to support themselves in college, and most of them work at least 15 hours per week. As seen in the literature review, financial responsibility can have negative impacts on the mental health of students. About 37% of students in this sample had to work to support themselves in high school, most of whom worked at least 20 hours per week. Approximately 42% of students in this sample participate in 1-2 extracurricular organizations or activities per week, and about 35% of participants engage in 3-4 extracurricular activities each week on average.

About 22% of students in this study are first-generation students. One participant stated, “It brings me tears of joy to see people who look like me that are achieving greatness. I was not

accustomed to black excellence before coming to college. Now that I am at Xavier, it is a breath of fresh air to be surrounded by powerful, smart, outstanding Black students and faculty.” He went on to state, “It is amazing to see Black men breaking and disproving stereotypes that are often made about us.”



**Figure 4.** Percentage of students that grew up in a two-parent household.



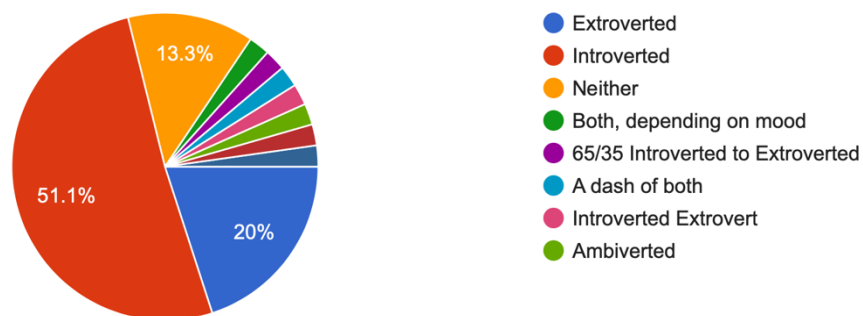
**Figure 5.** Percentage of students whose parents work in STEM.

RQ2: How important is the HBCU environment in supporting Black males in pursuit of STEM degrees?

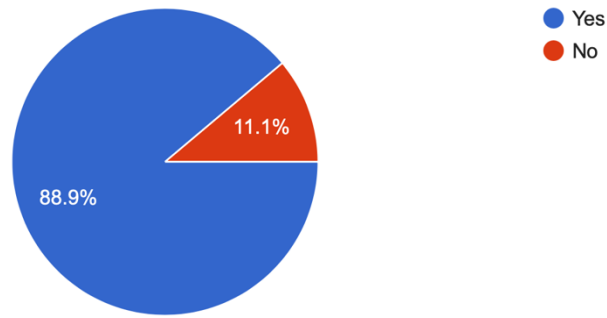
More than half, about 51%, of students in this sample considered themselves to be introverted. About 20% considered themselves to be extroverted, and the remaining students

considered them to be neither or a combination of both. About 84% of students engage in community service during the school year. Such findings reflect data supported within the literature review, about how many Black students at HBCUs find passion in serving the local communities near campus.

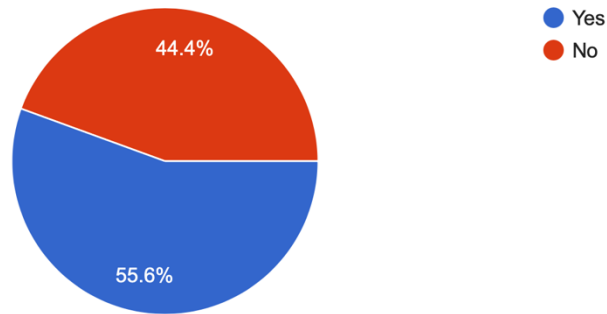
About 89% of participants had a positive Black male role model or mentor during their childhood. The effects of mentorship and positive reinforcement may lead to positive outcomes among Black males in pursuit of STEM degrees. More than half of the students in this sample, about 55%, had academically high-achieving Black male friends during their childhood. One student noted, “It can be discouraging not seeing someone who looks like me in the field, so it is extremely rewarding to know other Black males are pursuing STEM.” Being surrounded by other like-minded Black men serves as an encouraging factor for students in this sample to continue their STEM pursuits.



**Figure 6.** Self-identified adjectives of students in the study.



**Figure 7.** Students in the study with a positive Black male role model and/or mentor during their childhood.



**Figure 8.** Students with academically high-achieving Black male friends during their childhood before college.

RQ3: How do Black males in college cope with stress?

For many participants in this sample, common hobbies included listening to music, reading, exercising, social media use, television use, spending time with friends, and spending time outdoors. Some commonly identified positive manners of coping by students in this sample were listening to music, exercising, being around friends and family, watching television, and



sleeping. Some commonly identified negative manners of coping included partaking in drugs, alcohol, and parties.

Most of the participants in this sample highlighted the importance of their social networks serving as a positive coping mechanism. One student states that students on his campus “encourage one another to take a break from studying at times.” Removing the focus from school at times allows students to relax and achieve mental clarity. This student also states that classmates encourage mental well-being by “acknowledging that we’re going through the same things.”

Another participant stated that Black peers within STEM, “provides a family atmosphere as we are all experiencing the same struggles.” One student stated, “Through a sense of community, our peers become confidants and allow us to express the tribulations that we are going through.”

A consensus answer throughout the survey was that the faculty and staff play a major role in sustaining the mental health of these students on campus. One participant answered, “HBCU faculty make it their task to create close relationships with their students so that students can come to them about both academics and life struggles. This, for me, is reassuring.”

One student answered, “My HBCU faculty feels like a family to me. I am comfortable going to them about any problems I may have.” Another participant stated, “I feel that for the most part, the faculty cares about my mental health. They are encouraging and uplifting. I feel that there are also multiple people that I can talk to when I am struggling with my mental health.” No participants went into detail in open-ended questions about negative coping approaches to managing stress as a STEM major.

RQ4: How did the pandemic affect the mental health of Black males in STEM?

In the short term, the pandemic had a shared effect on most participants in this sample. However, over time, the impact of the pandemic differed among students in the sample. Initially, for most students, the pandemic made them feel more isolated and fearful for their more susceptible family members. However, the pandemic had positive and negative effects on students as time went on.

For instance, one student answered, “The pandemic kept me more isolated than I was used to. I did not see my friends and family as often, so a sense of loneliness was present. I was also limited in the activities I could partake in to strengthen my application for medical school, so that was discouraging. Long term it made me appreciate the little things more and not take things like seeing family for granted.”

For one student, the pandemic “recentered where [he] wanted to go in life” in the long term. Along the same line, another student stated that the pandemic “showed [him] how little [he] care about the ‘crowd’s’ opinion” in the long run. Such insights detail the positive effects of the pandemic on students’ mental well-being and outlook on life.

On the opposite spectrum, one student stated, “Short term, it affected me by not allowing me to hang out with my friends. Long term, it made me even more antisocial than I already was.” On a similar note, another student answered that short-term: it did not impact his mental health “severely but as being someone who prefers to be outside interacting with the outside world, events and activities that help cope with stress were halted.” Long term, the student stated the effects of the pandemic “causes occasional episodes of depression from the feeling of not being able to freely do anything without of fear of health being jeopardized.”

Likewise, another student answered that “I feel that the pandemic affected me mentally by isolating me long-term from human beings and it also began to enable bad habits.” These insights highlight the negative effects in the long term on the well-being of students.

### **Discussion**

The results confirm the importance of a strong support system and faculty engagement for the well-being and mental health of Black males pursuing STEM degrees. However, they do not definitively indicate to what extent background, family, and education were significant a factor in differences in coping, although they are important contributors to motivating STEM students in their pursuit of STEM degrees. The results also confirm some of the positive ways in which Black students cope with stress, such as through their peers and exercise.

We also learned that the pandemic’s effects on undergraduate students pursuing STEM played a role in their mental stress. There has not been a heavy amount of research detailing the effects of the pandemic on the mental health of Black men between the ages of 18-22 years old pursuing STEM degrees and this study begins to add to research that documents this effect among a specific group of students.

This is a piloted study at just one institution, so the sample size is smaller in scope and more targeted and as such with a wider sample, we can learn more about how Black men in STEM vary in terms of how their background impact their pursuit of a STEM degree. Additionally, most students in this sample were born and/or raised in the Southern region of the United States so future studies can gauge geographical background as a factor in motivation to pursue and complete a STEM undergraduate program as a young Black male. While we are

provided information about the effects of the pandemic, future studies can contrast more young men in different states where the pandemic was different.

Additional research in this area should further explore the differences in the environments of HBCUs and PWIs to determine what specific ways they differ in supporting the mental well-being of young Black male students in STEM, particularly on how they cope. Future studies can also analyze the effects of mentorship for Black male students in STEM, post-pandemic as millions of people throughout the world felt a sense of loneliness because of the pandemic. As documented in previous literature, mentorship within STEM can tremendously boost the academic morale of students.

### **Conclusion**

In 2022, scholars continue to study why certain fields remain underrepresented. Today, Black men continue to remain one of the main groups that continue to be in decline in STEM professions as Black women continue to increase in these roles at the same time. Since mental health is often an area that is stigmatized in the Black community, particularly for Black men, it is a worthwhile area to study in understanding why few Black men pursue and complete STEM education goals.

This study shows that listening to music, exercising, being around friends and family, watching television, and sleeping are positive coping mechanisms for young Black students in STEM. Conversely, partaking in drugs, alcohol, and parties are negative coping strategies for Black men in STEM. An environment that provides resources for exercise, counseling, social networking and simultaneously steers students away from drugs, alcohol, and vices may prove beneficial for sustaining the number of Black men pursuing careers in STEM. Though more

research is needed, this study provides potential environmental elements that may be useful for Black men in STEM.

In other words, Black men can come from supportive households, have mentors, or even attend HBCUs, but these factors alone are not enough for the preparation needed to persevere. These findings, though preliminary, highlighted the importance of peer encouragement and peer camaraderie as Black male students pursue STEM degrees. For many students in this sample, seeing others struggle through and overcome mental battles, helps them to realize that they are not pursuing their STEM journey alone and that there are others with a similar mindset as them who face the same struggles. This study also re-emphasized the significance of faculty engagement and support in providing counseling resources for young Black men. Support systems to ensure Black men do not feel a sense of isolation may prove even more essential considering the post-pandemic context.

## References

- Atkins, K., Dougan, B. M., Dromgold-Sermen, M. S., Potter, H., Sathy, V., & Panter, A. T. (2020). "Looking at Myself in the Future": how mentoring shapes scientific identity for STEM students from underrepresented groups. *International Journal of STEM Education*, 7(1), 1-15.
- Barry, A. E., Jackson, Z., Watkins, D. C., Goodwill, J. R., & Hunte, H. E. (2017). Alcohol use and mental health conditions among Black college males: do those attending postsecondary minority institutions fare better than those at primarily White institutions?. *American journal of men's health*, 11(4), 962-968.
- Brown, H. R., & Sacco-Bene, C. (2018). Path to Success: Shared Wisdom of How HBCU Institutional Agents Support African American Men Matriculate. *Journal of African American males in education*, 9(2).
- Black men make up less than 3% of physicians. That requires immediate action, say leaders in academic medicine. (n.d.). AAMC. <https://www.aamc.org/news-insights/black-men-make-less-3-physicians-requires-immediate-action-say-leaders-academic-medicine>

- Colleges now produce fewer Black graduates in math and engineering.* (2021, April 12). The Hechinger Report. <https://hechingerreport.org/even-as-colleges-pledge-to-improve-share-of-engineering-graduates-who-are-black-declines/>
- Fries-Britt, S. (2017). It takes more than academic preparation: A nuanced look at Black male success in STEM. *Journal of African American Males in Education*, 8(1), 6-22.
- Fries-Britt, S., & White-Lewis, D. (2020). In pursuit of meaningful relationships: How Black males perceive faculty interactions in STEM. *The Urban Review*, 52(3), 521-540.
- Fry, R., Kennedy, B., & Funk, C. (2021, April 1). STEM Jobs See Uneven Progress in Increasing Gender, Racial and Ethnic Diversity. *Pew Research Center*. <https://www.pewresearch.org/science/2021/04/01/stem-jobs-see-uneven-progress-in-increasing-gender-racial-and-ethnic-diversity/>
- Garrett, L., Huang, L., & Carter, V. L. (2017). Findings in STEM retention at historically Black colleges and universities. *Negro Educational Review*, 68(1-4), 81-157.
- Gazley, J. L., & Campbell, P. B. (2020). The role of resilience in Black men's success in STEM graduate programs. *The Journal of Negro Education*, 89(3), 360-372.
- Goings, R. B. (2017). Traditional and nontraditional high-achieving Black males' strategies for interacting with faculty at a historically Black college and university. *The Journal of Men's Studies*, 25(3), 316-335.
- Goodwill, J. R., Watkins, D. C., Johnson, N. C., & Allen, J. O. (2018). An exploratory study of stress and coping among Black college men. *American journal of orthopsychiatry*, 88(5), 538.
- Hood, S., Golembiewski, E., Benbow, K., Sow, H., & Sanders Thompson, V. (2017). Who can I turn to? Emotional support availability in African American social networks. *Social Sciences*, 6(3), 104.
- Hudson, D. L., Eaton, J., Banks, A., Sewell, W., & Neighbors, H. (2018). "Down in the Sewers": Perceptions of depression and depression care among African American men. *American journal of men's health*, 12(1), 126-137
- Johnson, J. M., & McGowan, B. L. (2017). Untold Stories: The Gendered Experiences of High Achieving African American Male Alumni of Historically Black Colleges and Universities. *Journal of African American Males in Education*, 8(1).
- Micari, M., Sriram, J., Getty, S., McCune, C., Rice, H., & White, S. (2021). Supporting student learning outside the classroom: A research agenda for STEM academic support at the undergraduate level.
- Overall trends - Occupation - nsf.gov - Women, Minorities, and Persons with Disabilities in Science and Engineering - NCSES - US National Science Foundation (NSF). (n.d.). [Www.nsf.gov. https://www.nsf.gov/statistics/2017/nsf17310/digest/occupation/overall.cfm](https://www.nsf.gov/statistics/2017/nsf17310/digest/occupation/overall.cfm)

# Newman: Mental Health and Coping Habits of Young Black Men in STEM at an Black Men in STEM Survey

For Black Men in STEM at XULA. Your identity will remain anonymous, please answer honestly. This is a survey created by a fellow Black Man in STEM at XULA! On open-ended questions, there is no minimum or maximum word count required. Please be open and truthful; your words may help other young Black Men coming after you.

Strayhorn, T. L. (2017). Factors that influence the persistence and success of Black men in urban public universities. *Urban Education, 52*(9), 1106-1128. <sup>js</sup> anonymously in my mental health \*  
research project for young black men in STEM

Watkins, D. C., Goodwill, J. R., Johnson, N. C., Casanova, A., Wei, T., Allen, J. O., ... & Abelson, J. M. (2020). An online behavioral health intervention promoting mental health, manhood, and social support for young Black men: The YBMen project. *American journal of men's health, 14*(4), 1557988320937215.

Age? \*

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- 25
- Other...

## Appendix A

### Black Men in STEM Survey

Do any of your parents work in STEM? \*

- Yes
- No

What is the highest degree held by your parents? \*

- High School Diploma
- Some College
- Associate Degree
- Bachelor's Degree
- Master's Degree
- Doctorate Degree
- Professional Terminal Degree (ie. law, medical, dental, etc.)

Classification? \*

- Freshman
- Sophomore
- Junior
- Senior
- Other

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Short answer text

Male siblings? Are they older or younger? \*

- Yes; older
- Yes; younger
- Yes; combination of older and younger male siblings
- No
- Other...

If yes, how many male siblings? And what is your birth order amongst your siblings (are you first born or the last child, etc.) If no, please type n/a \*

Short answer text

Did you grow up in a two-parent household? \*

- Yes
- No

If no, which parent/guardian did you reside the most with? If yes, please type "n/a" \*

Short answer text

Did you graduate from a predominately white high school? \*

- Yes
- No

Were you the only Black male (or one of few) in any of your high school classes? \*

- Yes
- No

On average, are you an "A" student, "B" student, "C" student, or "D" student? In other words, how would you rate your usual academic performance in most of your classes in college? \*

- "A" student
- "B" student
- "C" student
- "D" student

On average, were you an "A" student, "B" student, "C" student, or "D" student in high school? In other words, how would you rate your usual academic performance in most of your classes during high school? \*

- "A" student
- "B" student



On average, were you an "A" student, "B" student, "C" student, or "D" student in high school? In other words, how would you rate your usual academic performance in most of your classes during high school?

- "A" student
- "B" student
- "C" student
- "D" student

Do you have to work to support yourself in college? \*

- Yes
- No

If yes, how many hours do you work a week, on average?

Short answer text

Did you have to work to support yourself during high school? \*

- Yes
- No

If yes, how many hours a week, on average?

If yes, how many hours a week, on average?

Short answer text

About how many extracurricular activities/organizations do you engage in per semester? \*

- 0
- 1-2
- 3-4
- 5-6
- 7-8
- 9+

Do you consider yourself extroverted, introverted, or neither? \*

- Extroverted
- Introverted
- Neither
- Other...

Do you engage in community service during the school year? \*

Do you engage in community service during the school year?

- Yes
- No

Are you a first-generation college student (select yes if parents have some college but did not complete)? \*

- Yes
- No
- Other...

At what age did you decide to pursue a college degree in STEM? \*

Short answer text

Did you have a positive Black male role model and/or mentor during your childhood (before college)? \*

- Yes
- No

If yes, whom (you may list more than one)? (If no, please type "none") \*

If yes, whom (you may list more than one)? (If no, please type "none") \*

Short answer text

Did you have any academically high-achieving Black male friends during your childhood before college? \*

- Yes
- No

Which of the following subjects did you prefer the most before college? \*

- STEM related
- Language Arts (reading, writing, grammar, english, etc.)
- Social Studies (history, geography, etc.)
- Other...

What is your major?

Short answer text

What are your future career goals? \*

Short answer text

## Newman: Mental Health and Coping Habits of Young Black Men in STEM at an

What are some of your hobbies outside of school?

Long answer text

What do you identify as positive ways of coping with stress (i.e., exercise, sports, drugs, parties, TV, music, therapy, etc.)? \*

Long answer text

What do you identify as negative ways of coping with stress (i.e., exercise, sports, drugs, parties, TV, music, therapy, etc.)? \*

Long answer text

How did the pandemic affect your well-being and mental health (short-term and long-term)? Please explain. \*

Long answer text

What is the significance for you of seeing other Black male students who are also pursuing degrees in STEM? \*

Long answer text

How did the pandemic affect your well-being and mental health (short-term and long-term)? Please explain. \*

Long answer text

What is the significance for you of seeing other Black male students who are also pursuing degrees in STEM? \*

Long answer text

In what ways do your HBCU faculty and staff support your mental wellbeing as a STEM major? \*

Long answer text

In what ways do your fellow HBCU classmates, friends, and peers support your mental wellbeing as a STEM major? \*

Long answer text

Why do you think there aren't many conversations around mental health and well-being for Black men in STEM? \*

Long answer text

