


Culturally Responsive Postsecondary Readiness Practices for Black Males: Practice and Policy Recommendations for School Counselors

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Abstract

Postsecondary readiness is critical to broadening opportunities for educational and career options beyond high school. However, Black males are often at a disadvantage to gaining access to postsecondary preparation and school counselors who can respond to their academic needs. Therefore, the purpose of this study was to explore the experiences and culturally responsive practices of school stakeholders (who are predominantly Black) from an academy of engineering (career academy). The authors used a case study approach to examine culturally responsive practices school personnel utilize to enhance the college and career readiness of Black males. Findings emphasize the role of culturally responsive practices (e.g., Black male role models from business and industry in the engineering field and school counselors), cultural matching, and the role of the advisory board in ensuring the success of Black male students. Recommendations for practice, policy, and research for Black males and school counselors are discussed.

Keywords: Black males, culturally responsive practices, postsecondary readiness, career academies

Postsecondary credentials such as college degrees and industry recognized certificates are seen as pathways to better careers, higher levels of income and improved quality of life (Carnevale et al., 2015; Hines, Harris, Mayes et al., 2020; Hines, Hines, Moore et al., 2020). Moreover, individuals who possess postsecondary credentials tend to make one million dollars more over a lifetime than persons with just a high school diploma (Baker, 2005; Carnavale et al., 2015; Jackson & Moore, 2006). However, access to these credentials is unequal and inequitable for certain populations. Black males are least likely to be prepared, and oftentimes encounter barriers to postsecondary opportunities. Moreover, Black males tend to have higher rates of out-of-school suspension and expulsion than White males (Ford & Moore, 2013); referrals for special education rather than gifted and talented programs (Ford, 2014); and

lower high school graduation and college enrollment rates (Harper, 2012; Schott Foundation for Public Education, 2015). Further, Black males are often in classrooms with unqualified teachers, encounter teacher bias as well as learning in environments that lack culturally responsive pedagogy.

To that end, Black males are in an education system composed of mostly White teachers (84%) which frequently results in a cultural mismatch between the backgrounds and interests of teachers and their students (Achinstein & Aguirre, 2008). Unfortunately, the under preparation of Black males in postsecondary readiness does not occur in a vacuum. Institutional (e.g., school) issues play a role in Black males' college and career transitions. Low teacher expectations, the lack of rigorous courses, dilapidated school buildings (especially in urban areas), and higher discipline rates have been found to contribute to the underachievement of Black males (Ford & Moore, 2013). Therefore, it is likely that culturally responsive educators can improve the postsecondary readiness outcomes of Black males.

School counselors, who are trained to be culturally competent, play a significant role in the college and career readiness of *all* students (American School Counselor Association [ASCA], 2019). School counselors acquire training to work with students of diverse backgrounds, especially those in underserved schools (Hines, Harris, Mayes et al., 2020). The College Board's National Office of School Counselor Advocacy created the Eight Components of College and Career Readiness, a systemic, inclusive approach to preparing students, especially those who are underrepresented for postsecondary opportunities (College Board, 2010). School counselors can use the aforementioned set of practices to increase access to postsecondary opportunities. Further, school counselors have been trained in the area of cultural responsiveness to work with students of ALL backgrounds as well as making inclusion the norm rather than the exception (ASCA, 2019). Culturally responsive theory (Ladson-Billings, 1995) posits that culturally responsive educators develop a cultural awareness of their students and understand how their own biases and beliefs impact the experiences, interactions, and outcomes

they have with their students. Moreover, cultural matching, when educators and students share the same cultural backgrounds, is seen as another method to improve the academic and career outcomes of students from diverse backgrounds (Athinstein & Aguirre, 2008; Easton-Brooks, 2014). Given this information, the authors of this study believe that culturally responsive school counselors can enhance and increase college and career preparation for Black males, especially those interested in Science, Technology, Engineering, and Math (STEM).

We also need to understand what motivates Black males with high potential for successful transitions to high-wage, high-demand fields, such as those in STEM. This need is at the core of the national call for broadening student participation in STEM pathways, as Black males are one of the most underrepresented student demographics (Brown et al., 2016). For example, 6.1% of Black males earned a STEM baccalaureate degree in 2002, and only slightly increased to 6.2% in 2012 (National Science Foundation [NSF], 2013). Within the workforce, Black males comprised only 6.2% of STEM careers (NSF, 2013). These statistics suggest the need for enhancing the preparation of pre-collegiate African American male students interested in pursuing STEM degrees and careers.

Based on the theoretical and scientific literature, the academic and career decisions to pursue STEM fields are made at the high school level (Maltese & Tai, 2011; Moore, 2006), and Black high school students are more likely to participate in career and technical education (CTE) programs (Fletcher & Zirkle, 2009), but are less likely to participate in CTE programs related to STEM areas, or have taken the necessary prerequisites to pursue STEM fields in postsecondary education (Brown et al., 2016; Fletcher & Cox, 2012). As a result, Black male high school students are often underprepared to pursue STEM college majors and careers (Wright, 2011). However, when students participate in STEM high school CTE programs, they eventually attain STEM occupations (Fletcher, 2014; Fletcher & Tyson, 2016). Therefore, the purpose of this study was to examine the experiences and culturally responsive practices of school stakeholders, including school counselors (who are predominantly Black), from an academy of engineering. We were particularly interested in effective practices they used for Black males in a high school academy of engineering.

Postsecondary Readiness of Black Males

The term college and career readiness has been defined in multiple ways (Achieve, 2021; American College Testing [ACT], 2010; Conley, 2010; Southern Regional Education Board [SREB], n.d.). Achieve, an organization dedicated to education reform, defines college and career readiness as “all students should graduate from high school ready for college, careers, and life, prepared to pursue the future of their choosing” (Achieve, 2021, para 1), while ACT suggests that college and career readiness is defined as students being prepared and successfully enrolled into their first year of college (or postsecondary institution) by possessing certain knowledge and skills (ACT, 2010).

Conley (2010) created four important components of college and career readiness: cognitive strategies, content knowledge, learning skills and techniques, and transition knowledge and skills. Moreover, the U. S. Department of Education (n.d.) suggests states and local education agencies have high standards for students in regard to college and career readiness as well as ensuring students are prepared for postsecondary institutions without the need to take remedial courses after high school. Last, SREB (n.d.) noted that many states have various definitions of college and career readiness. The authors use college and career readiness and postsecondary readiness interchangeably throughout this paper.

According to the National Center for Education Statistics (2016), Black males graduated at a lower rate of 64% compared to their Asian (93%), Latinx (74%), and White (84%) male peers. Moreover, the six-year graduation rate for Black males from a 4-year college or university is lower (36%) than Asian (72%), Latinx (52%), and White (63%) males (NCES, 2020). Black males are underrepresented in advanced courses or rigorous coursework which often leads to lower postsecondary readiness (College Board, 2015). Further Advanced Placement (AP) and dual enrollment courses give students access to a curriculum that prepares them for college, access to quality teachers, and reduced college costs by attaining college credit via passing AP exams (Hallett & Venegas, 2011; Kolluri, 2018). Although there has been an increase in creating equity and access for all students in taking AP courses, Black males remain underrepresented.

Authors have documented successes of Black males who have pursued postsecondary opportunities. Hines et al. (2015) found that Black males who persisted to and through college had support from teachers, family members, and college faculty and staff. The aforementioned stakeholders provided encouragement, support (financial or motivational), and opportunities for Black males. Moreover, the findings suggest that Black males saw a purpose in pursuing college and finishing, especially for their family members. Hines et al. (2019) found that Black and Latinx males had supportive school counselors, teachers, and administrators who assisted them with the college going process. Last, Harper (2012) conducted a study with Black males and found that extracurricular activities, involvement in leadership opportunities, and college readiness courses (e.g., Advanced Placement) lead to higher rates of college matriculation for Black students. A high school reform initiative that promotes college and career readiness for Black male students is through participation in high school career academies (Fletcher & Cox, 2012; Fletcher et al., 2021; Fletcher & Moore, in press Fletcher & Tan, 2021).

High School Career Academies

Moore (2006) found that (a) having a strong interest in STEM; (b) participating in high school CTE programs that emphasize STEM; (c) acquiring high aptitudes in science and mathematics; (d) gaining the support from parents and family members; and (e) fostering meaningful experiences

and relationships with school personnel were all inspirational aspects motivating Black males to major in STEM areas in college. Career academies are programs of study featuring small learning communities found within high schools (Stern et al., 2010). They focus on providing students with a college-preparatory curriculum integrated within a career theme (Stern et al., 2010). Thus, curricula in career academies feature the integration of academic and technical content to increase rigor and relevance to students' career interests (Stern et al., 2010). The academy model also emphasizes partnerships with employers and postsecondary institutions (Castellano et al., 2012; Kemple & Snipes, 2000). The number of career academies in the nation grew to approximately 8,000 (National Career Academy Coalition, 2019). However, with the growing popularity of the career academy concept, the quality of implementation has varied greatly. To this end, there have been efforts to inform related implementation with the development of standards of practice by school networks such as the National Academy Foundation (NAF; Stern et al., 2010). Since 1982, the NAF has supported a national network of high school career academies in five career themes, including Engineering and IT (NAF, 2013). Currently, NAF has 225 Engineering and IT academies serving 41,811 students from 190 high schools across the nation. The student demographics of the academies are 64% male and 36% female. The ethnic and racial backgrounds include: 39% Hispanic/Latino, 28% Black/African American, 22% White, 8% Asian, and 3% Multi-racial; while 74% of students who come from economically disadvantaged backgrounds and 20% are English language learners. In 2016, 17% of the students completed internships, and 92% (of 97% of seniors who graduated) were college-bound. Further, NAF academy schools are in urban areas with highly diverse student populations in terms of ethnic backgrounds, socio-economic status, and dis(ability) status.

The NAF model features four components. The *academy development and structure* component focus on smaller learning communities using student cohorts, career-themed and sequenced coursework, common teacher planning, career-themed guidance, and ongoing professional development. The *integrated curriculum and instruction* component is designed to promote career and academic learning around a relevant theme (e.g., Engineering and IT) through project-based activities, work-based learning experiences, and internships. In turn, the *advisory board* component includes members representing community stakeholder groups to ensure that academies are locally relevant and supported. Finally, the *work-based learning* component includes career awareness and exploration activities in 9th (e.g., field trips) and 10th (e.g., job shadowing) grades, and experiential opportunities (e.g., industry certifications, paid internships) in 11th and 12th grades. In terms of student outcomes, based on the 2012-13 NAF status report, about 97% of NAF seniors graduated high school and plan to pursue college or technical studies, while 52% of NAF graduates earn bachelor's degrees in four years—compared with 32% nationally. Fletcher et al. (2012) found that Black students believed participation in career

academies was the most meaningful aspect of their schooling experiences and provided them an opportunity to gain a sense of community/belonging, acquire hands-on training, and explore their own individual interests. Thus, it is quite plausible that career academies have a positive impact on Black male students (Fletcher & Cox, 2012).

Role of School Counselors

School counselors are trained professionals who help students in the area of academic achievement, socioemotional learning, and college and career readiness (ASCA, 2019). School counselors have the knowledge and skill to use school data to identify opportunity gaps and work to create interventions to produce equitable outcomes such as helping all students become postsecondary ready (ASCA, 2019; Holcomb-McCoy, 2007). Moreover, school counselors deliver direct services such as individual counseling, small group work, and classroom curricular programming as well as individual academic advising and planning (ASCA, 2019). In addition, school counselors receive training around cultural competency and responsiveness to work with students of various diverse backgrounds and identities. Further, culturally responsive school counselors are needed to help Black males with both career development and college preparation as they have the skills to provide access and equitable opportunities (Fletcher & Tan, 2021; Hines, Hines, Moore et al., 2020). Hines and Holcomb-McCoy (2013) suggested incorporating parents, particularly Black fathers or male role models, to help Black males with academic achievement. Owens et al. (2010) noted that school counselors can help Black males be successful by recognizing the challenges they must go through and giving them strategies of resilience.

Given that opportunity gaps do not happen in a vacuum, researchers (Ford, 2014; Ford & Moore, 2013; Sue et al., 2019) have found that racism and systemic oppression play a significant role in the underachievement of Black males. School counselors are trained to recognize their biases and beliefs and how this can impact their engagement with Black males (Sue et al. 2019). Moreover, scholars (Ford & Moore, 2013; Henfield et al., 2008; Owens et al., 2010) have found that culturally responsive interactions with Black males lead to positive academic and social outcomes.

Conceptual Framework

While the K-12 student population in urban schools is increasingly diversifying, the teaching and school counseling workforce remains largely White (79%) and female (77%). Even though Black male students comprise 16% of the total K-12 student population, Black male teachers comprise only 2% of the total percentage of teachers (Goings & Bianco, 2016; Kena et al., 2015). The representation of Black males among the school counseling ranks is equally dismal (Allen, 2018; Brooms, 2021; Zippa, 2021). Unfortunately, too many Black male students are not afforded schooling experiences where they can have meaningful student-teacher and student-school counselor

relationships with Black male professionals in the school (Goings & Bianco, 2016).

Brown (2009) discussed the unique dispositions, qualifications, capacities, and pedagogical performances that Black male teachers use; these practices were related to engaging and addressing the conditions of educating Black males. He also emphasized the unique verbal capacities, interactional styles, authoritative stances, interpersonal skills, and personal connections that Black male teachers use when teaching Black male students. Brown shared in his study that:

...African American male teachers...work through uncertainties and employ a variety of beliefs, practices and pedagogies to address the needs of African American male students. And of course, embedded within these practices, beliefs and pedagogies was in-depth understanding of what it means to be 'Black' and 'male.' And yet, even here, both how the teachers approached Black male students and envisioned the model for what these students should and could become was quite different. (p. 433)

Brown (2012) further reminded us that the successes of Black male educators in teaching Black male students are not simply because of their shared gender and ethnic/racial identities. Rather, the successes are related to the pedagogies they employ by using a culturally centered framing.

Increasing the representation of Black males among the school counseling and school psychology ranks is a worthy proposition to pursue. In many school systems across the country, there is a dearth of Black male role models. As noted earlier, this is not only evident in the teaching workforce but also true in school counseling and psychology. Too often, Black males "operate under a shield of distrust toward whites" (Majors & Mancini Billson, 1992, p. 40) and are reluctant to engage or open up to non-Blacks or even non-Black males. Thus, Black male students are likely to benefit from the presence of Black school stakeholders.

Cultural/Ethnic Matching

Research has shown that cultural/ethnic matching produces positive school outcomes (Achinstein & Aguirre, 2008; Dee, 2004; Easton-Brooks et al., 2010; Eddy & Easton-Brooks, 2011). The concept of cultural matching is a term used to describe how ethnically and racially diverse students gain access to learning opportunities if schools and school stakeholders offer more culturally congruent, compatible, responsive, or synchronized learning environments that connect them with their home cultures (Achinstein & Aguirre, 2008). These individuals can serve as role models and positive examples of adults for students. Researchers (Dee, 2004; Easton-Brooks et al., 2010; Eddy & Easton-Brooks, 2011) noted that students "when matched with a teacher of the same ethnicity...ethnic minority students performed higher on academic achievement tests than those ethnic minority students who are not taught by ethnic

minority teachers" (Easton-Brooks, 2014, p. 101). According to Achinstein and Aguirre (2008):

Previous research reports that such a match may promote positive relationships and role models, support students in crossing cultural and linguistic boundaries in school, foster culturally relevant teaching for diverse students' learning, and ease the professional's transition to working in high-minority urban schools. (p. 1506)

Overall, the gains found in cultural matching are largely attributed to the connection Black teachers make in the school to the home lives of their Black students (Banks, 1996; Gay, 2000; Milner, 2007; Nieto, 2000). Even further, researchers have demonstrated that teachers assessed students with similar cultures more favorably compared to those from other ethnic groups and have more positive perceptions of their students' learning capabilities (Casteel, 1998; Ehrenberg et al., 1995; Ferguson, 1998; Zimmerman et al., 1995).

Researchers have found that the academic success of Black students is substantially influenced by the social support and encouragement that they gain from their teachers (and other school stakeholders; Brooms, 2016; Ladson-Billings, 2009). For Black elementary students, Black teachers had a positive impact on the reading outcomes of Black learners likely because of the similarities in language/ethnic-dialect (Christian, 1997; Paulston, 1998; Pérez, 1998). In addition, Dee (2004) found that Black teachers had a positive impact on the mathematics achievement of their Black students. Further, researchers have reported higher teacher expectations and lower rates of student absences and school suspensions (Holt & Gershenson, 2015). Those students who are schooled in environments with school stakeholders who employ culturally responsive practices often experience a positive school culture. Yet, there are strategies and mindsets that White school professionals can employ to improve the experiences, interactions, and outcomes of ethnically and racially diverse students. These strategies and mindsets are discussed within the theory of culturally responsive pedagogy.

Culturally Responsive Pedagogy

Ladson-Billings (1995) posited that the theory of culturally responsive pedagogy is founded on three elements: (a) the need for all students to experience academic success; (b) the need for teachers to be culturally competent; and (c) the need for teachers to build their own cultural consciousness by confronting the status quo in society and schools. First, to capitalize on the strengths of students in the classroom, teachers must assess the knowledge and beliefs students encompass, understand how their students learn, and construct learning experiences to support their achievement. Further, teachers must harness a sociocultural consciousness. This type of teacher attitude entails: (a) respect for their learners and their ways of knowing; (b) adaptive instructional practices based on the needs of their

students; and (c) a dedication to the learning of children. Moreover, teachers with a sociocultural consciousness understand that their upbringing and experiences are not universal but are shaped by their own unique experiences and demographics (e.g., culture, race, ethnicity, gender, language, geographic region, sexual orientation, socioeconomic status, among others).

Gonzalez et al. (2005) expanded the notion of sociocultural consciousness with the concept of “funds of knowledge” which acknowledges that all students are competent based on their unique lived experiences. Their premise is that teachers need to go beyond the classroom and establish experiences and relationships with their students’ families to successfully document this competence and knowledge. With this knowledge and understanding, teachers may then begin to integrate aspects of their students’ home and community cultures into the classroom for instructional purposes.

Ladson-Billings (1995) described the issue of Black students not being permitted to be themselves in the classroom. To address this issue, teachers need to be culturally competent and use culture as a motivation for learning. Therefore, teachers can use students’ cultural interests as a bridge for learning academic concepts. In addition, teachers need to be reflective practitioners who examine their own cultural assumptions and how it shapes their instructional decision making. And culturally responsive teachers often “form and maintain connections with their students within their social contexts” (Banks et al., 2005, p. 245). The outcomes of culturally relevant teaching are classrooms that foster academically challenging environments and curricula which are equitable and responsive to diverse learners.

Ladson-Billings and Tate (1995) also argued that teachers must be cognizant of how race in the United States continues to be a factor in determining school inequities, as we still live in a racialized society. Despite the ideological advancements made, particularly between Whites and Blacks, Blacks remain disadvantaged based on their race. These socio-historical issues, along with institutional and structural racism, are major factors in understanding why White students consistently outperform Black students—even middle-class Black students—on a variety of student achievement measures. However, multicultural education is likely to lead to an equalizing effect on diverse racial, ethnic, and social groups within schools.

Method

Research Design

Our research question for this study was: what culturally responsive practices do school stakeholders rely on to ensure the success of Black males in a high school academy of engineering? We followed a qualitative, instrumental case study design to explore the experiences of school stakeholders (e.g., students, district and school personnel, and community partners) associated with the implementation of the career academy (Stake, 2006; Yin,

1994). Our research approach was interpretivist in nature and attempted to capture the meaning of participants’ experiences and their sense-making on social issues. During discussions with the participants, we were able to understand and interpret the meanings of their decisions to engage and support Black male academy of engineering students. The case study approach allowed for the documentation of rich descriptive information about the setting in which the high school academy of engineering was implemented for the purpose of identifying both factors and detractors (e.g., interpersonal and interorganizational features) that contributed to student experiences. The goal was to document: (a) the organizational development and purpose; (b) the nature of curriculum and instruction; (c) strategies for supporting Black male engineering students; and (d) the internal (e.g., district and school) and external (e.g., community) system of support. We used pseudonyms throughout our discussions to replace participant and school names as well as locations.

We studied a NAF (formerly known as the National Academy Foundation) academy of engineering (the case) operating within unique contexts (e.g., community and school district) at a distinguished level according to the NAF standards of practice. NAF continuously evaluates their high school academies to assess their level of implementation based on standards of practice. They rate academies on three levels of implementation, using the following hierarchy from highest to lowest: distinguished, model, and certified. NAF’s educational design is based on these elements: academy development and structure, curriculum and instruction, advisory board, and work-based learning (NAF, 2013). The case study method was the most appropriate for studying school culture, organizational structures and supports, and practices of a distinguished NAF whole school (all students participate in one of several career academy themes) magnet academy of engineering for the following reasons. First, case studies focus on understanding the case, and how it operates in context of its particular situation. Second, case studies emphasize the functioning, activities, and practices that take place within the case. Third, case studies examine working parts and structures of a case as a system. In our case study, we relied on indirect (interviewing participants) data-gathering methods, which were conducted virtually using Zoom due to the COVID-19 pandemic (Stake, 2006; Yin, 1994).

Selection Criteria for the Case

We used purposive sampling, our deliberate selection of the school and its stakeholders based on established criteria, to select Stanton Academy (pseudonym) because it was a distinguished NAF academy of engineering and its demographics: 99% African American and 95% economically disadvantaged student population (Etikan et al., 2016). We believed Stanton Academy would help us uncover how high-fidelity NAF academy school stakeholders promote the success of Black male engineering students. Hence, the richness of the academy context and

implementation of student supports helped us to answer our research question.

The Case: Stanton Academy

Demographics. Stanton Academy is located in the city of Stanton (population of approximately 124,000) which is 55% White, 37% African American/Black, 4% Latinx, and 3% Asian. The median income was approximately \$42,000, and 19% of the community members lived below the poverty line. The city of Stanton was home to a historically black college and university.

The Stanton Engineering Academy was a public school with a distinguished (whole school magnet) NAF academy (one of several career themed programs) embedded within the school. It was located in an urban area within the Southeastern region of the United States. Stanton Academy was comprised of approximately 1,263 students and 71 teachers (who were majority Black). In terms of gender, 51% of students were female and 49% were male. Concerning ethnic and racial background, 99% of students were Black and 1% were Latinx. Ninety-five percent of students qualified for free and/or reduced lunch. The graduation rate was 81%. Stanton Academy relied on an application system for student admission to the academy of engineering and several other career themed academies within the school.

Researchers' Positionalities

It is helpful to acknowledge our own inherent biases, perspectives, and frames of reference as researchers, which most likely influenced and shaped research encounters, processes, and findings. All authors are faculty (three Black men and one Black woman). We have professional backgrounds in the field of career and technical/workforce education, special education (with an emphasis in gifted education), and counselor education. All three of us have studied issues related to the impact of student participation in high school STEM-themed career academies as well as inequities in access to academically rigorous programs in schools, particularly for ethnically and racially diverse as well as students who come from economically disadvantaged backgrounds. To that end, it is likely that our interest and experiences with the aforementioned topics positively impact our interpretations of students' engagement with these curricular programs.

Data Collection

The Institutional Review Board approved the research data collection methods used in this study, including the use of assent and consent forms for students. Stanton Academy's principal assisted in identifying and requesting participants to interview. Because of the COVID-19 pandemic, we conducted the interviews virtually using Zoom. To that end, we conducted 11 virtual group interviews with three district administrators, two school administrators, one school board member, one school staff member (Registrar), eight teachers

(core academic and Engineering teachers), two school counselors, eight advisory board members (comprised of postsecondary partners and business and industry representatives), and six African American/Black male Academy of Engineering students ($n = 31$). The interviews were related to the mission and vision of the academy, curriculum and instruction, and external (community members) and internal (district and school) support targeted toward Black male students in the academy of engineering. However, the items of the interview protocol differed based on each stakeholder group. The interviews occurred on January 25th, 26th, and 28th of 2021. Each interview lasted for 60 minutes in duration.

Participant Selection

We used the maximum variation sampling procedure to identify key stakeholders who supported the academy and students within it (Collins et al., 2007). More specifically, we relied on the knowledge of an insider informant (the principal) to provide us with a list of participants to interview during our 3-day virtual interview. The stakeholders (participants) served in a variety of capacities within the school and we selected them based on their contributions according to our insider informant.

Data Analyses

All interviews were audio-recorded and transcribed verbatim. We used constant comparison analysis to capture contextual factors underlying program implementation (Leech & Onwuegbuzie, 2007). We first read the entire dataset of transcripts. After doing so, we divided the dataset into smaller meaningful segments. We then labeled each segment with a code. Afterwards, we compared each component and collapsed those with similar codes. Last, we developed themes for each code group. For example, in arriving at a theme, the entire research team first read every transcript individually. We then individually re-read each transcript to search for patterns/codes related to the mission and vision, curriculum and instruction, and internal and external support of the school. We met as a research team to discuss the codes that emerged. We then went back to the transcripts to select quotes that matched the codes, including those that accurately depicted the implementation and supports provided at the academy. We finally were able to discuss and agree on possible phrases/statements to represent the codes, which became our themes. We relied on analytical triangulation by engaging in the collective reading and analyses of transcripts to establish trustworthiness.

Results

The purpose of this study was to examine the culturally responsive practices used by school stakeholders (who were predominantly Black) to engage Black male students from an academy of engineering. Our research question for this study was: what culturally responsive practices do school stakeholders rely on to ensure the success of Black males in

a high school academy of engineering? The following themes emerged from our interview data: (a) mentors needed for Black males, (b) a need for more Black male school counselors, and (c) the role of a culturally responsive advisory board.

Mentors Needed for Black Males

While we had a range of perspectives regarding the differences between the Black females and males in the academy of engineering, the majority of the school stakeholders we interviewed believed there was not a substantial difference between the male and female students in the academy of engineering in terms of academics, behavior, and engagement. For example, Ms. Davis (the academy director), expressed:

The males were—I can't say they were more engaged than the females were because they all were there for that same program, and they were all excited about what they were learning. They knew that they had a career path. They knew where they were going. I didn't really see any differences.

Instead, they told us that the challenges and issues most of their students faced emanated from their home environments, often being raised by one parent (their mothers), and what middle school they attended. Within that context, Mr. Davidson (advisory board member), discussed:

What we generally can see is you can see the difference in the—in maybe the upbringing and maybe the home life and the home structure. You may see a young man that comes in and he's been coached by his mother, father, someone in the home, the importance of makin' a good first impression, which will be a lastin' impression, and—with makin' eye contact, sittin' up, and showing a general—genuine interest versus someone that may not—that's just comin' in to satisfy a grade when doin' the mock interviews.

Thus, the school stakeholders expressed the need for Black males to have additional social-emotional as well as academic support. Further, they expressed the need for Black males to have role models who aligned with their cultural backgrounds and were professionals in the field of engineering. Ms. Howard, a business teacher, told us:

I think when we're talkin' about the male, it should be. They need that extra support. Let's just be honest about it. Some of them don't have that extra support at home that they need. Let's just be honest. They may need that extra support. It's a great thing for them. That's where that mentor comes in handy, that mentorship, that extra push for them that they may not have that male structure at home. I think there should be extra support for the males to help them get over that initial hump, to get—to see where they're going.

Having a Black male role model who is in the field of engineering, whether they are a college/university faculty member in engineering or a professional working in the field, was described to us as a motivator for students who had a desire to major and/or work in engineering. Nonetheless, those students who personally knew someone who was an engineer had a better sense of their career aspirations and desires to pursue engineering post-high school. For many Black males, the stakeholders discussed how Black male students often have lofty goals and visions of playing athletics professionally post-high school. An engineering teacher, Mr. Tan, shared with us:

Some things that I observed here at [Stanton Academy] is that the males, something about having a good role model is what's driving their career choice, and for now, I think...a lot of their role models are football players. The majority of their sole reason for being here sometimes, I feel, is to play football. Go pro. That's sometimes the mentality I get from some of my students...whenever I ask them what do they wanna do when they grown up, and, again, minus the football players, whenever they said, "engineer," I said, "Well, why was that?" It's because they said they knew someone from engineering, and they like what they do, and it's shown as a role model. For example, one of my student's parent is an engineer, and so they built that relationship with their parents to say, "I wanna do that too." I think having that role model and having some type of mentorship where students can see that bein' an engineer is a career choice that people take, and it's fun, will definitely influence their decision on taking engineering classes a little bit more seriously because they can get notoriously difficult. Whenever you try to take a difficult class without the interest, you just lose them. Building interest through model models, I think, should be targeted towards everyone, but I think for males specifically, the problem is that they think that...they...can go pro NFL. There's nothin' against that, but whenever that is their one target, and they think that is the only option, that's when they start to decline in other areas...but I think building some type of relationship with a NSBE [National Society for Black Engineers] organization, either at [local HBCU with one of the top engineering programs] or [local PWI], here at [Stanton Academy] would be pretty good for including a mentor into their lives.

It was evident through our interview with the stakeholders that athletics was a large contributor to the motivation of Black male students at Stanton Academy. While the stakeholders agreed that athletics did help students focus and better perform in the academy of engineering, it also was problematic as many of the students seemed to have unrealistic goals of playing basketball or football professionally. Therefore, the teachers attempted to help their students understand that the odds of playing professional sports are low and they communicated the value of having options beyond a sole focus on athletics.

A Need for more Black Male School Counselors

Mr. Henry, an AP Government and U.S. History teacher shared with us about the emotional challenges that Black male students faced in the school. These challenges often emanated from the lack of a father present in their students' lives. While Stanton Academy had one Black male school counselor, Mr. Henry believed the school needed more Black male school counselors to address the social emotional needs of the students. He told us:

Oh, most definitely with our young African American males. Honestly, the best thing, what we really need, is probably if we had the ability to have some Black male counselors on campus for these kids to talk with. 'Cause sometimes they just need to talk with somebody that they can't talk with at home. A lot of the times, particularly with the boys, even though I'm White, I'm closer to their age than a lot of the other teachers so they'll come and just speak with me...Sometimes it'll be serious what they talk about. ...Sometimes they just need to vent...I would say we need some Black male counselors on campus, honestly. For our males..Our counselors are more guidance counselors, getting their classes set up and everything.

The teachers and school counselors both brought up the issue that school counselors at Stanton Academy lacked the time to devote to counseling students, particularly Black males. For example, Ms. Jackson (a Black science teacher) told us: "They have a lot of tasks...Counseling is not like it used to be, but I will say that the counselors here, when these students need that other part [counseling], they make time for them." When we asked the school counselors what their roles and responsibilities are on a daily basis, they told us that they spend most of their time on administrative duties and not on counseling students. Mr. James, a Black male school counselor at Stanton Academy reported, "It's academic, some counseling support, graduation, class audits...from 504..and then most of us also do extracurricular activities on campus as well." Gloria, a Black female school counselor at Stanton Academy confirmed. She stated:

Yeah. I know personally I have cut down as much as student interactions. I enjoy that more [the student interactions], just being able to interact with them...[I do] much less counselin' [than] I do...administrative paperwork, auditing, testing, so it's more of that than actually counseling.

The school stakeholders at Stanton Academy identified the challenge of addressing the social emotional needs of their Black male students as well as the lack of time for school counselors to do so. Thus, it was evident that Stanton Academy needed more Black male mentors who had a background in engineering as well as for Black male school counselors. The stakeholders believed that cultural matching would help motivate their students and offer support needed for their Black male learners.

The Role of a Culturally Responsive Advisory Board

To address the need to have Black male role models, Stanton Academy worked with the engineering teachers and advisory board members to incorporate more guest speakers from business and industry who matched the cultural backgrounds (Black males) of the students. These mentors would also help students in creating their class projects. Getting the mentors was not a difficult challenge for Stanton Academy, with a 98% Black population, because they had a large number of Black teachers, administrators, and other school personnel. The academy also had a large number of alumni and community members who wanted to give back to students at their alma mater, and share their experiences of success. Ms. Walker, the School Registrar, mentioned:

A lotta the times, the current students are in amazement or like, "You graduate from [Stanton Academy]?" They're like, "Yeah, we graduated from here." To see an engineer or someone in that profession that's somewhat close to their age group is aweing to them. It's like, "Really? You graduated? I'm in the program, and you graduated from here." Just to see that, that gives the students a sense of inspirement for them to say, "Well, if you did it, then, yeah, I can do it too."

The mentors provided the Black male students in the academy of engineering inspiration and a realization that they, too, can be successful in the engineering field. Thus, Stanton Academy school stakeholders relied on cultural matching as a culturally responsive strategy to engage their Black male students. This was a challenge for the school stakeholders due to the COVID-19 pandemic. Yet, the school stakeholders addressed this challenge by providing opportunities for guest speakers to present virtually. To that end, Ms. Jenkins, a chemistry teacher, said:

We do a lot to make sure that they get good examples, models—role models to follow. I know especially with my class, I reach out to—because it's engineering, other engineers to come in and help mentor projects. Right now we're during COVID, so everything had to be virtually, but before COVID, I would bring in engineering mentors to come in and talk to our students to guide them in their projects and just kinda be an example for 'em. More recently, one of our graduates reached out, so sometimes that happens whereas we just recently conducted a virtual interview...a question session I should say, allowing a recent graduate to talk to senior engineering students who are interested in pursuing engineering and actually learn the process of setting up a little partnership so they can help some students who are actually on track applyin' to colleges for engineering to prepare them for interviews and things like that.

The guest speakers were not only from business and industry, the teachers also brought in university administrators and faculty, professional athletes, and alumni

to share their individual journeys and insights. The Associate Superintendent for Career and Technical Education, Dr. Roberts articulated:

Because they have so many people coming in to just talk, and they are meeting presidents of universities, engineering and owners of businesses and firms, professional athletes who used to be students there. The students just get the opportunities to meet people, and that's important to them. They wanna network and take the next step.

The Principal, Ms. Johnson, shared that bringing in Black mentors and role models was a culturally responsive practice at Stanton Academy. This culturally responsive practice was effective, but not as difficult for Stanton Academy given that the majority of their school stakeholders are Black. Ms. Johnson stated:

One, we are, again, 98 percent African American. I think that, with teachers inviting mentors into the class as it relates to the engineerin' profession, givin' students the opportunity to see themselves outside of or in the actual profession. They have a lot of those opportunities as well. I think that's one way that our teachers address the cultural component.

Another culturally responsive practice that was identified by the school stakeholders was ensuring students had access and exposure to culturally appropriate professional associations (e.g., the National Society for Black Engineers [NSBE]) and were taken on field trips to Historically Black Colleges and Universities (HBCUs). Mr. Wilson, Assistant Principal, reiterated by sharing:

Absolutely. I also think givin' our students access and exposure to programs like NSBE helps with that as well. I think with [local HBCU] being one of the top engineering schools in the nation and being an HBCU adds to that. I know, even during our summer break, one of the things we do is try and bring in different companies, as well as universities. One of those weeks is dedicated to HBCUs. The majority of the speakers, presenters, mentors that come in and present are African American. I think that that just—like Principal [Johnson] said, it's helped them to visualize it.

Thus, the school stakeholders at Stanton Academy believed that the cultural matching of school personnel and community members with students was a strength based culturally responsive practice that served as a source of motivation for the Black male students in the academy of engineering. The Black male students we interviewed also acknowledged the positive influence that Black stakeholders and the community had on their motivation to succeed despite their economic and environmental challenges. Andre, a Black male senior student in the academy of engineering, commented:

[Stanton] be a predominantly Black school, the community and the school. And, I think they play a part of it 'cause it's not the best neighborhood, but we make the most out of it, and the people around, they wanna see us get out of here. They wanna see us doin' great and I think that play a part of it 'cause who don't wanna see us doin' great?

It was evident that the students recognized that their school personnel at Stanton Academy worked tirelessly to ensure they had the best educational experience possible by creating a relationship and connecting to their personal interests. The students also recognized that their Black teachers had high expectations for their achievement. Further, their teachers provided social and emotional support that they needed to overcome life challenges. Darius, a Black male senior in the academy of engineering, explained:

[We] got a lot of teachers at this school that—they really—I feel like almost every teacher at the school, you can build a bond with them and once that bond is made, it's never gonna break. Like we all had the same connection with Miss [Jackson] and how she a big motivation to all of us and how she push us. I'm pretty sure that any time we ever feelin' down or we feel like we need help with somethin', we could always just reach out to her and she gonna be right there.

It was not only the teachers, but the advisory board members were equally important regarding the success of the Black males in the academy of engineering. Their roles and responsibilities were multifaceted. The advisory board members engaged in fundraising to support the academy and students with equipment and supplies. They created opportunities for students to engage in work-based learning activities (e.g., job shadowing, mock interviews, internships). The advisory board also connected the students with culturally aligned organizations like NSBE and HBCUs for their learners to hear from Black professionals and higher education students about their experiences and transitions from high school to college as well as in the workplace. Additionally, the advisory board attempted to address any lingering issues that they found in the academy. For example, the advisory board members developed a program to help the academy of engineering students perform better on the ACT test as they realized this was a barrier for the high school students, particularly Black male students, in securing college majors in STEM areas such as engineering. The advisory board members we interviewed explained to us that while Black male students in the academy of engineering were graduating with high GPAs and grades from the high school, many of them were not able to matriculate into college to pursue a degree in engineering because of their low ACT scores. Thus, the advisory board made it their mission to work with their local university's engineering department faculty to provide ACT preparation sessions for the Black male academy of engineering students at Stanton Academy.

Discussion

Our results show the importance of having mentors, educators, community members (e.g., alumni), business and industry as well as postsecondary representatives reflect the cultural backgrounds of the student population (Dee, 2004; Easton-Brooks et al., 2010; Eddy & Easton-Brooks, 2011). We found that Black males benefited from cultural matching and a culturally responsive approach to postsecondary preparation, particularly in the field of engineering. This cultural matching was important as we found that Black school stakeholders provided their students with various culturally responsive supports, including social and emotional support, high expectations for success, strong relationships and connections to students' interests, and the identification of challenges and their abilities to address them (Ladson-Billings, 1995).

Similar to findings from a prior study, we also found that school counselors are in a pivotal role to bridge the educational and postsecondary needs of Black males and the resources from the community to provide opportunities for them [Black males] to be successful beyond high school and prepared for STEM careers such as one in engineering (Fletcher et al., in press, c). Yet, the school stakeholders at Stanton Academy identified this as a major challenge to effectively engaging their Black male academy of engineering students. Owens et al. (2010) noted that school counselors can help Black males be successful by recognizing the challenges they must go through and giving them strategies of resilience. Moreover, scholars (Ford & Moore, 2013; Henfield et al., 2008; Owens et al., 2010) have found that culturally responsive interactions with Black males lead to positive academic and social outcomes. In our study, the school stakeholders acknowledged that more Black male school counselors were needed as they reported that the Black male students dealt with significant home life challenges and therefore needed extra support to overcome them. While school counselors are trained to recognize their biases and beliefs and how this can impact their engagement with Black males (Sue et al., 2019), it was evident in our study that recruitment of Black male school counselors are needed with a school that is predominately Black, which is noted in a prior study (Fletcher & Tan, 2021).

We also found that the advisory board played a major role in providing culturally responsive support for Black males. At Stanton Academy, the advisory board went above the typical functions of this type of committee. They not only provided fundraising for student scholarships and work-based learning opportunities, but they sought to identify and address challenges that Black male students faced in the academy of engineering. One of the biggest challenges that they addressed is the need to provide Black male students with ACT preparation as a mechanism to ensure their matriculation into college with a STEM major. To that end, we believe it is important to incorporate school counselors into the advisory board who have the ability to collaborate, evaluate, and advocate for policy around postsecondary readiness for Black male students (Hines, et al., 2020).

Recommendations

Practice

School counselors have skills in creating and evaluating programs geared toward postsecondary readiness (ASCA, 2019, Erford, 2019a). For example, Hines and colleagues (2020) created a five-lesson plan curriculum titled, *Achieving Excellence: A College Readiness Curriculum for African American Males*, a group counseling approach to prepare 10th graders for college. The curriculum is designed for school counselors to incorporate a psychoeducational process with activities that incorporate Black male role models to discuss their career decision-making. As mentioned in the findings, the curriculum can help Black men who have unrealistic goals about their future to engage in goal-setting and planning that aligns with their gifts and talents. Moreover, the curriculum includes pre- and post-tests to evaluate student comprehension and learning. Further, this curriculum has a lesson plan that involves bringing in Black male guest speakers from various careers as well as being alumni of the school to assist with postsecondary preparation. Additionally, school counselors are trained to evaluate school counseling programs that can better prepare students to receive adequate services leading to student achievement and success (Council for Accreditation of Counseling and Related Educational Programs [CACREP], 2016). In other words, school counselors engage in outcome or results evaluation to understand if students have changed or improved in achievement or behavior as a function of school counselor activities (e.g., intervention or prevention; Erford, 2019b).

Collaboration was key to helping Black males in the pursuit of engineering as demonstrated in the results section. School counselors use collaboration to achieve a common goal or objective (ASCA, 2019). Further, the advisory board is a vehicle to implement collaboration between stakeholders to assist Black males. School counselors are trained to create a similar board called Advisory Council in which they work on goals of the school counseling program, funding for school counseling programs, and review annual student goals (ASCA, 2019 p.72). School counselor skills on the advisory council can easily translate into leading an advisory board for career academies given their expertise and knowledge in promoting school counseling programs through a public relations process. School counselors can engage in school-family-community partnerships, especially in urban schools (Bryan, 2005; Bryan & Henry, 2012; Epstein et al., 2019) to create an ecosystem of role models and stakeholder engagement outside of school, collaboration with the advisory board, and engage with school personnel to ensure Black males are academically successful in school and adequately prepared for a career in engineering.

Policy

Policy around improving Black male representation in engineering or other STEM programs where they are underrepresented should be addressed. Although Stanton

Academy has business leaders and mentors who are Black men coming in to help students, perhaps school counselors can work with school leaders and the school district to formalize a partnership that recognizes the need for Black males who are in engineering to serve as leaders in the schools. Also, school counselors and the advisory board can advocate for more school counselors of color, particularly Black males. Career Academies can develop a Grow Your Own (Fletcher, 2014) program or collaborate with school counseling programs at colleges or universities to develop a pipeline to hire school counselors, specifically Black males, who reflect their student populations. Moreover, the school district can partner with a local My Brother's Keeper chapter (or national if a chapter is not present) to create partnerships that will improve the academic outcomes and recruit Black males into engineering programs. Finally, school leaders should enact policy that will make sure school counselors are fulfilling their roles in engaging and counseling studies rather than doing non-counseling duties such as testing as encouraged by the ASCA National Model (ASCA, 2019).

Research

More research is needed to understand how educational stakeholders became culturally responsive. Interviewing educational stakeholders can give insight on how they acquired their culturally responsive practices so other educators, especially White educators, can implement this approach to assist Black males. Furthermore, scholars can explore the types of mentors Black males at Career Academies need to be academically successful and to continually be engaged in postsecondary preparation activities, such as continuing to pursue STEM careers and majors. Further, exploring Black males' perceptions and outcomes of having mentors has research implications to understanding the effectiveness of culturally responsive mentorship, especially for students in STEM. Lastly, interviewing other Black male school counselors who are in the profession may assist with understanding how to recruit them into the profession.

Limitations

There are several limitations that exist with this study. First, this study used a qualitative approach and the sample cannot be generalized to all educational stakeholders. Thus, the findings are limited to this particular case. Any implications rest on similar school, student, stakeholder, and community contexts. Second, the majority of the educational stakeholders were Black and the study did not have the perspectives of non-Black stakeholders. This limits our ability to uncover effective strategies that non-Black stakeholders used to support Black male students. Third, the research study occurred in NAF academies and not a traditional, comprehensive high school where experiences and results may differ. Hence, our findings have direct implications for the 619 NAF academies within 392 high schools serving 117,550 students nationwide. Fourth, school counselors were one of many school stakeholders in this

study. Therefore, the perspectives of school stakeholders were not the sole focus of the research. Fifth, we only relied on the use of interviews for our data collection efforts. This limits the extent of information collected to inform our findings.

Conclusion

Culturally responsive educators are a necessary component to the success for Black males, especially those in STEM programs. More importantly, school counselors who reflect the cultural background or are culturally competent can advocate for and create school settings that will expand opportunities and maximize the potential of Black males in career academies. Lastly, culturally responsive school counselors can attract culturally responsive stakeholders to create a mutually beneficial situation: Black males achieving in schools as well as Black males entering postsecondary institutions and engineering careers to increase representation.

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