Collective Dreaming: Black Girl Refugees from Burundi and Their Aspirations for STEM College Education

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Abstract
In this qualitative study, we ask: (1) How do Burundian girls and women describe their intersecting identities and (2) How do Burundian girls and women make decisions around STEM education and future careers? To answer these questions, we analyzed interviews conducted with eight Burundian families involved in a university-community organization partnership.

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Key Words: African students, Burundi, girls and women, refugees

Purpose of Inquiry
The purpose of this study is to examine how refugee populations (specifically, Burundian girls and women; most frequently daughters and mothers and/or their female guardians) conceptualize and describe their identity and how it informs their aspirations for pursuing STEM higher education and STEM careers. The research questions that guide this work are: (1) How do Burundian girls and women describe their intersecting identities (e.g., race, gender, ethnic background) (2) How do Burundian girls and women make decisions around STEM education and future careers?

Theoretical Argument
Our work was guided by social cognitive career theory (SCCT), a framework for understanding how individuals develop and pursue vocational interests (Schaub, 2004). Originally conceptualized by Lent, Brown, and Hackett (2002), SCCT has been widely used in education research to understand attributes influencing choices in career aspirations. This conceptual model is useful for understanding the interplay between an individual's beliefs/ambitions and the structural realities one must navigate. This framework has been used widely in education literature, including in studies focused on African American college students (Dickinson et al. 2017), undergraduate science students (Byars-Winston et al., 2016), and gender in a secondary school setting (Chachashvili-Bolotin et al., 2016). Building on this prior research, we drew from SCCT tenets to look at the nexus of gender, race, and ethnicity and corresponding influence on aspirations for STEM higher education and careers.

Literature to Support Argument
According to the United Nations High Commissioner for Refugees (UNHCR), an estimated 108.4 million people were forcibly displaced from their homes at the end of 2022, and about half of this population were school-aged children (UNHCR, 2023a). As of May 2023, over 110 million individuals have been displaced, marking "the largest ever single-year increase in forced displacement in UNHCR's history" (UNHCR, 2023a, para 1). This astounding figure suggests that education stakeholders have an increased responsibility to ensure the continued provision of education to refugee children—especially since education is a human right for all.

Evidence shows that refugee children have lower school enrollment rates as compared to non-refugee children. Moreover, nearly half of all refugee children do not attend school (Palik & Østby, 2023; UNHCR, 2023b). Meanwhile, there are more refugee boys enrolled in school compared to girls, which further complicates refugee girls' schooling experiences particularly due to existing cultural and systemic barriers (UNHCR, 2018).

Since the majority of refugee children come from Africa (Urindwanayo & Richter, 2020), trends in global migration continue to show that African refugees are among those who are being resettled to the United States (Refugee Processing Center, 2024). However, within this 'new home,' Black African refugees experience various forms of discrimination, including racism and Islamophobia, making their transition into the U.S. education system challenging (Author 1, 2022; Haffejee, 2015). Furthermore, the unique challenges that Black African refugee girls experience post-resettlement– such as their cultural background and practices, parental engagement and expectations, and host country norms–all intersect in complicating how they navigate schooling in the U.S. (Mugisha, 2015). In our study, we push this further to unpack the experiences of Black African refugee girls and their aspirations for STEM college education, while simultaneously examining their identity formation and the communitarian ethos affecting their educational journey. We focus on the content of STEM specifically because of the growing prominence of this area in U.S. higher education and its potential for facilitating social mobility for refugee populations (Hrabowski, 2014).

Study Methods
The data for this proposal came from a broader, five-year National Science Foundation-funded project. This project is a collaboration between a university and various ethnic-based community organizations (EBCOs) based in the Southwestern United States. This collaboration involves both a research and educational outreach component.

Specifically, we drew from data collected between fall 2021 and spring 2022 with eight Burundian families with a refugee background. We used a phenomenological qualitative design, and we sought to uncover the "essence" of the development of aspirations among youth and parents/guardians. Several members of the research team (affiliated with the university in the university-Burundian EBCO partnership) conducted each interview either in-person on the university campus, via Zoom, or in a family member's home (upon invitation). Each family was interviewed three separate times over the course of one academic year, although not always by the same researcher each time.

Data Sources
The primary data source for analysis were interview data from eight families. These families were an integral part of the larger group of 24 Burundian families recruited by Burundian community leaders to participate five Saturday workshops focused on understanding how to transition from high school to college developing STEM career insight. Only eight families were selected for more-in-depth qualitative interviews.

We define a family as at least one parent/child pairing or sibling pairing. Interviews typically lasted 20-30 minutes, were audio-recorded, and were professionally transcribed. Most families participated in all three interviews, except for one family that discontinued participation after the second interview. In addition to interview data, researchers wrote memos after each interview that documented their reflections, insight shared after the recorder was turned off, and non-verbal communication of participants. Significant effort was made to build trust and to ensure that the families became familiar with the researchers and therefore responded openly and sincerely to the

questions posed to them such as: 1) When you think about a career in STEM in general and what thoughts or ideas do you have about such careers? 2) What are your feelings about your ability to do a STEM major in college?

Analytical Approach
Thematic analysis was used in analyzing the data. Thematic analysis is an approach used to analyze themes constructed from qualitative data. This sort of analysis is used to examine categories and trends in the data to present in-depth information for interpretations and discussions about a variety of topics (Boyatzis, 1998). The researchers opted to use this analysis method as appropriate for this study since they aimed to explore the patterns, similarities, and contradictions concerning the STEM aspirations among the Burundian refugee community concerning their race, gender, and ethnic heritage.

The authors analyzed interview data using three rounds of qualitative coding. In the first round, we actively read each interview transcript and annotated key words and phrases that could serve as codes using an open-access cloud-based coding software, Taugette. Per the thematic analysis, the researchers read the transcripts multiple times to familiarize themselves with the generality of the responses of each participant. We also noted important information, patterns, similarities, and contradictions. Examples of codes include: "Burundian culture," "Black women," and "impact of [redacted EBCO] name." These initial codes were conceptually "close" to the original data. In the second round of coding, we noted short phrases that appeared multiple times in the transcripts and corresponding textual evidence (direct quotes). In this step, we utilized the constant comparison method to identify patterns in previously analyzed text (Glaser & Strauss, 1967). We employed the inductive coding approach to code each meaning unit of the transcripts to obtain the initial codes. Next, we developed sub-themes from the initial codes created, making sure the sub-themes were as close to the data as possible. In the third and final round of coding, we reviewed all codes, researcher memos, and direct quotes and clustered the sub-themes to construct overarching themes we used present our findings. We used this information to craft a clear summary of the study data (McNiff & Whitehead, 2009).

Preliminary Findings
We first found that generally, participants expressed how race is not a consequential aspect of their identity. Instead, they tended to shift toward language and culture. More pointedly, the girls and women in our study also tended to push back against the idea that their race could or should be used against them in a discriminatory way. To this end, Dolores shared:

Sometimes you get discouraged because when you walk in class you feel like you're the only Black girl. And it is like everybody else just fit in and you stand out in a way because you're colored. […] I could do it…you can be Black and still be great.

In this excerpt, it is evident that Dolores recognizes that anti-Black racism exists, but feels quite resistant against the notion that she can or should be affected by it.

A second major finding is that among participants there is a commitment to developing career aspirations in the context of communal expectations, particularly family, as opposed to individual interest or ambition. However, participants' narratives highlighted tensions between personal and communal expectations thus showcasing the complex nature of being and becoming within Afro-communitarian spaces. Due to the heterogeneity in African girlhood, the different experiences

influenced how the girls navigate their career aspirations. The broader experiences and varying dynamics pointed to the self and the communal as important influences in career decisions. For example, in explaining the kinds of conversations they have in supporting their daughter's college education, Tiwonge's mother stated:

"You need to take these courses and education so you can have a successful future, so you can have a sustainable life and everything, and have a good foundation in your life, so you're not falling apart and everything."

Not only are the parents positioning education as a form of power to sustain one's livelihood, but they also take on a key role in choosing the courses and careers that their daughters pursue. The familial expectations on career choices and college education are further complicated when the girls' interests contrast from and/or conflict the familial desires. For example, Dalitso did not want to pursue a STEM career but said, "I feel like I would like to be a dance teacher…Or a volleyball teacher. Mostly, in my specials, I'm interested in dancing [and] volleyball because they're my favorite hobbies to do." Dalitso's interests in dance and volleyball were different from her mother's interests, which focused more on technology and math-centered subjects and careers. However, the overall priority was to ensure that she supports her daughter to succeed despite the differences and tensions between personal and familial aspirations.

Furthermore, in the complex participant stories, girls exhibited their agential power, while simultaneously also trying to respect familial expectations not just on STEM career education, but also on pursuing helping professions to help other African people, their families, and the broader community. This conceptualization of STEM careers as helping professions was rooted in both familial aspirations and individual interests. There were some participants who wanted to pursue STEM careers because their parents were "helping others' in their positions, while other girls were driven by internal altruistic desires. For example, Chisomo, whose career aspirations are altruistically motivation, stated:

"I think it was the overall impact I can make on others' lives rather than the impact it can make on my life. I couldn't really care less about the pay. I couldn't care less about anything. I just like the feeling that in STEM I'm able to help others, not only myself. My family members or even just other people in general, I'm able to help them and push us both forward in life."

On the other hand, Mwayi, Tiwonge's mother, said that she wanted her daughter to pursue a helping career "because her dad in the past…care[d] [for] the handicapped people." These narratives highlight the continued interactions between individual and familial aspirations and the ways in which they shape Black African Refugee girls' career journey.

Study Significance

In terms of programming centering on Black African refugee girls, especially within educational contexts, it is imperative to consider how their ontological nature of being and belonging within a community influences the implementation of education interventions. The communitarian nature among African people that is rooted in the collective while simultaneously considering the needs of the individual (Kayange, 2018; Khomba & Kangaude-Ulaya (2013) invites education practitioners and policymakers to be intentional about engaging with both individuals and their families. With these entanglements, higher education institutions must continue to consider how to engage their

individual students, particularly in thinking about African students, in their onto-epistemological realities that exist in ways closely tied to the collective.

Word count: 2,000/2,000 words

References

Author 1. (2022).

Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Sage.

Byars-Winston, A., Rogers, J., Branchaw, J., Pribbenow, C., Hanke, R., & Pfund, C. (2016). New measures assessing predictors of academic persistence for historically underrepresented racial/ethnic undergraduates in science. *CBE—Life Sciences Education*, *15*(3), ar32.

Chachashvili-Bolotin, S., Milner-Bolotin, M., & Lissitsa, S. (2016). Examination of factors predicting secondary students' interest in tertiary STEM education. *International Journal of Science Education*, *38*(3), 366-390.

Dickinson, J., Abrams, M. D., & Tokar, D. M. (2017). An examination of the applicability of social cognitive career theory for African American college students. *Journal of Career Assessment*, *25*(1), 75-92.

Haffejee, B. (2015). African refugee youths' stories of surviving trauma and transition in U.S. public schools. *Journal of Muslim Mental Health 9*(1), 3–23.

Hrabowski, F. A., I.I.I. (2014). Institutional change in higher education: Innovation and collaboration. *Peabody Journal of Education, 89*(3), 291-304.

Kayange, G. M. (2018). *Meaning and Truth in African Philosophy. [Electronic Resource]: Doing African Philosophy with Language*. London: Springer International Publishing.

Khomba, J. K., & Kangaude-Ulaya, E. C. (2013). Indigenisation of Corporate Strategies in Africa: Lessons from the African Ubuntu Philosophy. *China-USA Business Review 12* (7): 672–689.

Lent, R. W., Brown, S. D., & Hackett, G. (2002). Social cognitive career theory. *Career Choice and Development*, *4*(1), 255-311.

McNiff, J., & Whitehead, J. (2009). *Doing and writing action research*. Sage Publications.

Mugisha, V. M. (2015). Engaged African Refugee Youth Negotiating Schooling in America: An Inquiry into the Influence of Culture and Social Structure. *International Journal of Education, 7*(1), 165.

Palik, J., & Østby, G. (2023). Interventions to improve refugee children's access to education and quality learning: A scoping review of existing impact evaluations. *International Review of Education*, *69*(1), 227-247.

Refugee Processing Center. (2024). Admissions and Arrivals. https://www.wrapsnet.org/admissions-and-arrivals/

Schaub, M. (2004). Social cognitive career theory: Examining the mediating role of sociocognitive variables in the relation of personality to vocational interests. *Dissertation Abstracts International Section A: Humanities and Social Sciences, 64*(7-A), 2463.

UNHCR. (2018). *Her Turn: UNHCR report reveals critical gap in education for refugee girls.* https://www.unhcr.org/news/news-releases/her-turn-unhcr-report-reveals-critical-gap-education-refugee-girls

UNHCR. (2023a). *Figures at a glance.* https://www.unhcr.org/us/about-unhcr/who-we-are/figures-glance

UNHCR. (2023b). Refugee Statistics. UNHCR. https://www.unrefugees.org/refugee-facts/statistics/

Urindwanayo, D., & Richter, S. (2020). Teenage Pregnancy in Refugee Camps: A Narrative Synthesis. *Journal of International Women's Studies, 21*(1).