Negotiating Highly Complex Realities: Mathematically Talented Black Women's Continued Pursuit and Participation in the Field

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Black women's pursuit of undergraduate and graduate degrees in mathematics are nearly invisible in the mathematics education research literature (Borum & Walker, 2012). The overwhelming majority of research literature addressing the mathematics education of women fails to examine the unique experiences of Black women in mathematical spaces. In effort to address this gap in the research literature, I conducted a narrative inquiry project focused on the life and schooling experiences of mathematically talented Black women who earned an undergraduate degree in mathematics. Conducting an inquiry into their mathematical lives revealed the complex nature of being both Black and woman in pursuit of the field of mathematics academically and professionally.

While theoretical and methodological elements from both Black feminist standpoint theory (e.g., Collins, 1986) and womanist theory (e.g. Phillips, 2006) framed my thinking both theoretically and methodologically, narrative inquiry grounded the research project. This methodology afforded my participants (and me) the opportunity to tell stories of their (our) mathematical experiences. Employing narrative inquiry methodology focused research conversations on particular moments in participants' mathematical lives- their sacred stories- identifying common threads across experiences. I identified the following resonant threads: (1)

pre-college summer programs and scholarships; (2) mathematics majors' role and academic experience; (3) faculty and staff caring, support, and mentorship ("professional mothering") and student relationships; and (4) after-college challenges, opportunities, and professional experience. Each resonant thread adds a layer of complexity to the discourse around Black women's negotiation of mathematical spaces, and constitutes a significant aspect of their mathematical experiences. The aforementioned threads contributed to my participants' mathematical success and growth as academicians. Their stories appropriately delineate the challenges they faced in the mathematical arena, and ways in which they managed their mathematical pursuit. These stories of experience not only inform sustained support of mathematically talented Black women and other women of color, but also strategies for increasing participation, visibility, and engagement in the field of mathematics.

References

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