



We Deserve Education Without Trauma: The Occurrence of Spirit-Murdering on Black Womxn in Engineering Doctoral Programs

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Just a Black Feminist using engineering and research as tools to promote equity, justice, and inclusivity in engineering doctoral programs and industry.

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Introduction

The only one. A prized possession.

Truly filled with hope and outward expression.

I came in thinking “oh, life would be grand”

For a Black womxn who was of high demand.

But I speak my truth and my peers despise,

I do my work, but my advisor denies

I live my life, but I can't seem to advance

And they wonder why I am sick of this song and dance.

- Fantasi Nicole, The Holistic Soul Scholar

Black womxn continue to be caught in the matrix of oppression regarding their intersectional identity within an engineering doctoral context. We, as in Black womxn, are both hypervisible and invisible, overvalued and undervalued, respected yet demeaned, and admired yet shamed [1]–[5]. With the desire to make a difference in the world and in our communities, we agree to endure the obvious lack of racial and gendered representation [6], the “not so micro” microaggressions [7], and the turmoil of systemic racism [8] because we aim for a higher purpose. However, what happens when systemic racism and socialized practices [8] start chipping away out our confidence [9], our sense of belonging [10], [11], or emotional and mental well-being [12], and our scholarly development? What happens when the very thing that brings you such pain and distress is the fabric of what engineering doctoral education is made of? What happens when you are spirit-murdered and it causes you to become a fraction of your former self, all in pursuit of an academic degree and professional career.

The concept of spirit-murdering should be of intentional consideration in aiming to cultivate socially just engineering doctoral programs that disrupt anti-Black and anti-womxn practices and policies. Spirit-murdering describes the long-term residual impact of personal, psychological, and/or spiritual harm imposed on Black students. First conceptualized by Patricia Williams in legal studies [13], then later reconceptualized by Bettina Love to study Black boys and girls in K-12 environments [14], [15], spirit-murdering is now currently being situated as framing to understand the impact of harmful experiences in higher education [16]. However, the concept of spirit-murder has not yet been applied to the unique experiences of Black womxn in the context of engineering doctoral programs. Insights from this work could inform the adoption of new practices and policies that support and position faculty, staff, and administrators in fostering inclusive, non-harmful, liberatory experiences for all students, and especially the

historically marginalized. Therefore, we seek to answer the following overarching research question:

What are the various ways that Black womxn experience spirit-murdering in their engineering doctoral programs?

Using a subset of the initial homegirl conversations for a larger dissertation study, we use the theoretical framing of Black feminist thought [17] and a composite narrative [18] to understand and depict the varying ways that spirit-murdering manifests in the lives of nine Black womxn engineering PhD students and holders, who we refer to as our intellectual contributors (ICs).

Using the theoretical framing of Black feminist thought [17], we use a composite narrative [18] to understand and depict the varying ways that spirit-murdering manifests in the lives of five Black womxn engineering PhD students and holders, who we refer to as our intellectual contributors. Data collection for the overall dissertation study includes collage as elicitation [19], [20], a video narrative, and an initial and post homegirl conversation that served as tools for our intellectual contributors to share their experiences in ways that are unique and salient to them. The data included in this paper are results from the initial homegirl conversation, which was the initial consultation. This work aims to identify the behaviors of faculty, staff, and peers that are the impetus for spirit-murdering experiences of Black womxn in engineering doctoral programs. It is an immediate intent that this work will enable future identification of actionable ways that these practices can be disrupted and replaced with liberatory practices that seek to foster healing, development, and support for Black womxn in engineering higher education.

Positionality

As a Black feminist killjoy [21] who has been enrolled in 2 engineering PhD programs with 3 different academic advisors, I use this research as my own intellectual activism. Having attended 4 historically white institutions (HWIs) in 3 U.S. regions, I have had my fair share of experiences that have served the role of breaking me down to a mere fraction of myself. Everything that I thought I was, or believed myself to be, came into question through my experiences in educational settings. What I knew to be my #BlackGirlMagic was not viewed in academia as magic at all, but a threat to the traditional ways of the academy. At one point, I began to question my ability to be a researcher. I questioned whether I was good enough and who would care. Then I began to write. Not for myself, but for others. For the womxn who were having experiences similar, different, and in parallel with me. For the Black scholars who were struggling with their identities in academia too. I wrote until I felt a piece of me heal. I exposed until I felt a piece of me mend. I empowered until I felt a piece of me restore. I knew then what I had to do. I had to be the critical researcher that would heal by serving my fellow Black womxn in similar spaces and calling attention to the bullshit that made our persistence damn near impossible. I had to be the Black feminist killjoy who served to empower others, even if that meant that I would never be seen in a positive light again. With this paper, with this

work, I take a stance in solidarity with those who aim for equity and justice for all, not just some. And although I have my own experiences, I will use myself as an instrument that centers the perspectives of the Black womxn that I am in service to, my intellectual contributors, my homegirls.

Language

I find it important to note here that, because I am centering the ways of knowing of Black womxn, the language choices for this study include African American Vernacular English (AAVE) [22] and comes from a stance of empowerment for the Black community. Therefore, I highlight a few alternative words that have been used in place of more traditional, Western researcher terms. First, I start with the term “womxn”. I am operationalizing the term “womxn” only to decenter men and sexism and to center and empower women. I do not use this as an alternative to be inclusive to trans women and femme-presenting nonbinary persons because they are included in the term women and do not need a separate classification. Secondly, I discuss the term intellectual contributor. For too long, the intellectual contributions of Black womxn in the academy, and outside the academy, have been ignored, unfavored, undervalued, discredited, and rejected. Not today. These Black womxn are not just participating in these studies but providing intellectual contributions that they are not getting recognition or accolades for, but are being used to advance the field and academic scholarship. In alignment with the need for Black womxn to define their own identities, I will be referring to participants as intellectual contributors (ICs) who are investing in the advancement of this scholarship. Thirdly, I move to the term homegirl. Homegirl is a slang term in AAVE that refers to a female acquaintance from your own town, neighborhood, or social background. These womxn are not just contributors to my study, but my homegirls in a sense that we share common identity markers, and we will “go to bat for” (fight for each other) in the same way that we would our family and best friends. Therefore, I refer to our semi-structured interview as a homegirl conversation. Lastly, I want to address the supporters of this work. I, Fantasi Nicole, do not consider this work to be that of my own. I am the idea generator that is being used as a vessel to highlight the knowing and experiences of my peers, my homegirls. For protection purposes, I cannot list all of their names as authors, although I think it would be more than fair for their contributions to my scholarship. Additionally, without the support of my advisor as she helps me to revive my murdered spirit, I could not have had the energy or the support to do this work. So, I show solidarity with, and connection to, my homegirls and my advisor who have made this research possible for me. This is our work, not just mine.

Literature Review

For this study, spirit-murdering is operationalized, in accordance with scholars Patricia Williams and Bettina Love [13]–[15], as “the personal, psychological, and spiritual injuries to people of color through the fixed, yet fluid and moldable, structures of racism, privilege, and power.” Within the past decade, spirit-murdering has been a topic of interest to show how racist

and gendered experiences in educational settings have injured Black boys, girls, and young adults by impeding on our educational experiences, causing harm to our mental and emotional well-being, challenging our cultural wealth, devaluing our ways of knowing and being, and penalizing us for not being and acting white [16], [23]. Specifically, in higher education, scholars have used spirit-murdering to expose harsh interactions and experiences that have “killed the spirits” of students of color and caused us to look for ways to “renew our souls” while still enduring the inequitable conditions of the academy [24]. Examples of the occurrence of a spirit-murdering event include accusing scholars of cheating because of academic success, humiliating us in front of their peers for being different, disciplining us for exposing and challenging inequities present, and stealing our intellectual, physical, and emotional labor with no recognition [25]–[28]. The impact of these experiences have resulted in the puncturing of our souls, a slow academic death, terrors haunting our beings, and the birth of anger that turns into unwavering persistence or untimely departure [24].

It is of crucial importance that I acknowledge that spirit-murdering has a longitudinal impact. It is not just that this incident happened, and it bothered those impacted for the moment, but that it happened and left a residual impact on people’s overall being [12], [15]. Many of these wounds start as early as some scholars remember, and they are left to try to expose, process, and heal the lingering trauma that is associated with that “one moment” for oppressors. One scholar of color talks about how the impact of her second-grade teacher calling her a cheater birthed an anger in her that turned into persistence that in turn resulted in her being hyper-surveilled [24]. Examples of racist and gendered experiences through microaggressions, stereotypes, implicit bias, degradation, disciplining, hyper surveillance, and more that discuss what is happening, but not much literature focuses on how this impacts our spirit through long-term, lingering effects. Because universities are seeking to increase the number of diverse faculty, I think it is of the utmost importance that they consider things in our doctoral education that would prevent these scholars from wanting to be in academia or cause them more malaise when taking professorial roles. To identify inequitable practices to move towards a more socially just academia, we, as an academic culture, must identify and understand how these experiences occur and the impact it has on diversity and inclusion in higher education. Therefore, this work aims to produce work that highlights systemic inequities for Black womxn in engineering doctoral programs, provide specific examples with call-to-action for disruption of unjust practices, and hold faculty, staff, and peers accountable for their actions.

Theoretical Framework

Black feminist thought is a theory developed by scholar Patricia Hill Collins [17], [29] that is vital to examining how the complexities of Black womxn’s intersecting oppressions of race, class, gender, sexuality, and more shape our experiences and how these experiences shape consciousness as Black womxn. Exploring it in the research design, I use the notion of Black feminist standpoint epistemology and everyday knowledge [29], [30] as centering Black womxn’s ways of knowing within their engineering doctoral programs and how they conceptualize, experience, and reflect on the construct, spirit-murdering. The research design

aligns with the tenets of Black feminist thought demonstrated through the Black womxn chosen to focus on, the ways of knowing chosen to center, the critical methods chosen to employ, and the purpose of social justice chosen to pursue. In alignment with this theory, this work does not argue that there is a homogeneous way of knowing for Black womxn [29], [31]. However, it asserts that, even though there are different individual experiences, there are common core themes due to a shared legacy of oppression for Black womxn in the US. Therefore, through this research design and engagement with this scholarship, I use this critical social theory to provide the empowerment, tools, and solidarity needed to resist intersecting oppressions in engineering doctoral programs as an act of intellectual activism [32].

Methods

This study exposes the varying ways that spirit-murdering occurs and impacts the lives of five Black womxn in their engineering doctoral pursuits. By centering their ways of knowing, I present the findings in a composite narrative [18] format as a creative way to represent Black womxn's individual everyday knowledge and Black feminist standpoint epistemology as Black womxn in these spaces. Data collection used for the findings in this paper include the initial homegirl conversation. These conversations were analyzed to find commonalities and salient themes across our ICs. The salient themes and commonalities were then compiled to develop the composite narrative presented in the results section.

Our data collection method for this study included an initial homegirl conversation. The initial consultation served to identify if potential ICs met the criteria for the study which was 1) identify as a Black womxn, 2) be an engineering PhD student/graduate, and 3) have experience with spirit-murdering. During this conversation, we, my ICs and I, conversed about current positions, career intentions prior to starting PhD, the operationalization of the term "spirit-murdering", and experiences with spirit-murdering. ICs shared their experiences with spirit-murdering and the impact that it has had on them. After the initial conversation, ICs who shared a common understanding were contacted to move forward in the research process, which involved them 1) creating a 2D art piece to represent how they conceptualize spirit-murdering from their own experiences, 2) creating a video narrative to explain the elements of their art creation, and 3) having a post homegirl conversation around understandings of experience and impact of spirit-murdering. This paper focuses on the data from the initial homegirl conversations and the salient themes and commonalities found through analysis are presented in a composite narrative as the results.

The intellectual contributors are five Black womxn engineering doctoral students and Black womxn engineering PhD holders. This study was open to any Black womxn who is currently pursuing, or has already obtained, a PhD in engineering. All recruitment materials said the study was specifically seeking womxn who identified as having experiences with spirit-murdering in their respective engineering doctoral programs. To protect the ICs, details about the group are shared collectively, but not relating any particular characteristics to one homegirl or the other. All of our ICs attended an engineering PhD program at a Historically White

Institution (HWI). They were recruited through purposeful and snowball sampling, using peers and social groups that identify as Black and/or womxn in engineering or doctoral programs. I want to thank them for sharing their narratives and contributing to this scholarship. They are valued here, and I hope that the representation of their knowledge in the composite narrative serves as a form of spirit-healing for them.

The composite narrative is centered around a composite Black engineering doctoral student named Marvilous. Marvilous represents the five marvelous homegirls who trusted their stories to be shared for the advancement of justice in Black womxn, engineering, and doctoral education scholarship. What a marvelous contribution this is! The “Marvilous” story was developed into a composite narrative for a few reasons. Using narrative style writing allows research to be represented in a way that showcases the complexities of individual experiences while drawing out commonalities across those experiences [18]. Using a composite narrative also allowed me to offer a significant degree of anonymity to my ICs [18]. Also, using this style of writing can make this work accessible and increase understanding across particular groups and non-academic audiences [18].

The composite narrative was derived using the five transcripts from the initial homegirl conversations of the five ICs for this study. Using the transcripts to provide details to compliment the salient findings, I used direct quotations from these conversation transcripts. In the composite narrative, I use information from the literature review findings and the conversation transcripts to tell the composite narrative. To corroborate the composite narrative, I shared it with my ICs to confirm that they felt it accurately represented them and their experiences. The following is the results from the gathered data, analysis, and confirmed representation of my ICs.

The Narrative of “Marvilous”

Finding 1: Desire for Family Legacy - Community/Family Driven Aspirations

Marvilous was ecstatic that she had been accepted into her engineering PhD program at Midwest Western University (MWWU). She never initially thought she would get her PhD. When “mentors” and “friends” would recommend her pursuing her PhD, she would respond with comments like “What? I ain’t getting a PhD, girl. You crazy.” or “Who? When? Where? No.” Eventually, she decided to apply for the program at MWWU after constantly being encouraged by her mentors. One of the main driving factors for her decision was family and community oriented. “[She] knew [she] could be the first doctorate holder in [her] family.” Being from a close-knit community, she knew that attending this university and receiving her PhD would be a major milestone for Black culture. She “wanted to bring pride to [her] families”. Although she had worked in industry for several years, she wanted to use her degree to create opportunities and spread knowledge for those from her hometown. When asked what she wanted to do, Marvilous said:

“I really just want to hold companies accountable, hold universities accountable, make sure that they're reaching out to communities that actually need the help and not having partnerships with the rich white school down the street because obviously the rich white school down the street, that means that they have the capital to reach into the pockets of the parents. You need to be going into the actual community where you're actually serving, where your decisions as a company affects this lower community. And even for universities, y'all need to be taking care of these students, not just pumping them out like we're a factory. But actually holding true to all the promises that you gave these students when you were recruiting them.”

When “[she] realized what [she] wanted to do in the future, [she] knew she needed to also have the credentials and didn’t feel like anyone would listen to [her] without a PhD.” She felt that “the only way for [her] to hold these companies and universities accountable is for [her] to have a position of power where [she] can leverage [her] role to push for things that are actually going to bring about change in the lives of minoritized communities.” So, she laid out her plan in her business journal and was ready to take the necessary steps to achieve it. And getting accepted into the program at MWWU was the first step.

Finding 2: The Only One Present – Inadequate Racial/Gender Representation

On the first day of orientation, Marvilous walked into the conference room excited to see her new professors, her new peers, and her advisor and lab. Dressed to impress from head to toe, Marvilous wore a smile that could brighten the room. She was greeted by the secretary who seemed equally excited to see her. As she sat and waited for more people to join them, she stared around the room, noticing the advanced technological setup. Her observation was broken by the sound of laughter. She turns towards to the door to see a few of her peers walking in together, already acquainted and all white. They notice her, say hey with a wave, and go to the other side of the room to continue their conversation. A few professors walk in next, mostly white male, and then a few more of her peers. By the time the room was filled with the expected number of guests, Marvilous realized that she was one of two Black persons, one of three womxn, and the only Black womxn. Her thoughts reflected the sentiments “No one looks like me in my department at all. No one looks like me. No one has the same background as me at all. Do I belong her?”. Her smile wilted a bit from realizing that she was the only one, the only Black womxn in her program. She expected there to not be many, but she was not expecting to be the only one. She started to wonder what her experiences would be like, how people would treat her, how she would be viewed. She thought “There is no one to be like, “Hey this is what being Black at MWWU is about. This is what being Black in this department is about.” Anxiety and worry started to take over for a while. But, she remembered who and what she was doing this for. Marvilous was determined to make the best out of this situation. After all, she figured if it had to be only one, she was going to make a major impact. So, she quickly made an effort to become acquainted with her peers and sat through the rest of the orientation.

Finding 3: The White Tears They Cry – Discouraging Classroom/Peer Interactions

Marvilous' sense of belonging had started to dwindle. After two semesters in classes with her peers and in lab with her labmates, she was being "a fraction of [herself] mentally" and had "began to question everything, including herself". When working with her peers, it seemed like she could never get anything right. She would speak her truth in class, but it would fall on deaf ears or start an argument with people who felt she was being too controversial. Although she was only trying to engage with the material from her ways of knowing, her peers saw it as a threat to their traditional ways of knowing and engaging with scholarship. She could not even sit in an open space without being challenged for not belonging. While conducting a meeting in an open engineering graduate space, "a faculty member confronted [her] twice, threatening to call security the second time because he felt like [she] was loitering and did not belong". "Feeling uncomfortable and unsafe", Marvilous reluctantly left the open space. And her luck with her labmates was no better. While working on a paper with two white womxn, she asked them a question about the coding process after noticing some discrepancies in the data. Shocked that Marvilous, a Black womxn, had asked them about the coding process, they started crying and told her research advisor. Marvilous, sharing this story with a friend, said:

"I guess one of them coded some data a certain way and named it. I can't even remember what the name was, but I was questioning it. "Where did this come from?" And they started crying. Because I went to a HBCU, that was my first experience with white women's tears. I felt I just did something completely wrong. I was nervous that I was going to lose my job. But by the time I talked to my advisor, we talked about it and everything, but honestly, nothing even ever came from that paper because I didn't even want to work on that. So, and the other person ended up stopped working with us. I'm not even sure what happened, but I've worked with the other woman since, but I don't even know."

Feeling that she could not properly serve as a researcher with her labmates without them seeing her as Angry Black Womxn, she removed herself from the paper. These discussions and dialogues caused Marvilous to feel as though she did not belong because the way that she was operating as a scholar was not conducive to the way that her peers and labmates wanted her to be. "At that time, [her] spirit was murdered."

Finding 4: Toxic Relationships Don't Get Better With Time – Poor Advisor/Advisee Relationships

"By the third year, [Marvilous] felt like [she] wasn't a scholar" and her attitudes about her capabilities were constantly shifting due to her rocky relationship with her advisor. Her advisor was not supportive of her and took advantage of her not knowing the ins-and-outs of academia. Advisor "picked a 5 person committee", and was not supportive of Marvilous like Advisor was for the rest of her lab. At one point, Marvilous even tried to take a break from her working relationship with her advisor to TA. The TA assumed that Marvilous was "100% African" and "didn't have a choice" so TA "expected to work her "40 hours but only paid her for

20 hours”. Marvilous mentioned that she could only work the 20 hours that she was being paid for, and TA “terminated [her] employment while [she] was out having an emergency surgery” as TA’s “way of being spiteful for Marvilous only working the hours she paid her for.” In everything that Marvilous did with her advisor, she had messages that she wasn’t a scholar “[thrown] in [her] face.” She was told “I didn’t ask you for an essay. Don’t you know the difference between a research paper and an essay?” Advisor “made [her] feel like [she] needed to go back to learn how to write in English. In order to combat these messages, Marvilous overprepared for her qualifying exam, hoping that this would shift people’s attitudes on her capabilities and increase her sense of belonging as an engineering doctoral scholar. Around the time that she was to take her qualifying exam, the exam was being changed and the passing qualifications as well. When she took the qualifying exam, due to some discrepancies in grading, she was ultimately failed. She felt “like she was being punished in order for them to protect other faculty in the program”. Wanting clarity and affirmation, Marvilous asked Advisor what her committee thought of her. Advisor’s respond was “you are way too confident and speak with too much authority.”, to which Marvilous replied “well how does a scholar speak?”. She described this moment as being “beat down, emotionally and psychologically.” It “felt like [she] was facing a mob every time. It was really horrible.” This toxic relationship with her advisor caused Marvilous to shift her own positive perceptions of her academic capabilities because she was receiving such unjust treatment.

Finding 5: You Want Me to Sign Up for Another Six Years of This??? – Change in Professorial Intentions

Trying to advance through the PhD milestones was the icing on the cake that made Marvilous reconsider her intentions to join the professoriate. When she didn’t pass her qualifying exam the first time, she felt “there were a lot of [programmatic] factors at play that [she] was being punished for when they were trying to protect [faculty/students] in the program.” She “[didn’t] like feeling like a guinea pig and [the decision to fail her] basically pushed [her] back.”. After taking “3.5 years to pass her qualifying exam”, Marvilous had become convinced that she did not want to endure the perils of the academy. She just wanted to be done and get out. So she worked really hard to complete her dissertation in a manner that was timely for her. Her advisor felt that Marvilous had rushed through her dissertation and “accused [her] of fabricating [her] dissertation data [during] [her] dissertation defense.” Humiliated and degraded, Marvilous reluctantly went through all of her data again just to satisfy the accuser and defend again. Once she defended, she accepted a career path in an engineering company closer to home. She had “PTSD from [her] PhD experience” and just wanted the nightmare to be over. At her graduation, she walked across the stage with mixed emotions of pride, joy, anger, bitterness, disappointment, hurt, and despair. When people approached her and said, “Congratulations Dr. C”, she replied “just call me Marvilous.”

Discussion

The Marvilous Story encompasses the lived experiences of five Black womxn who have experienced spirit-murdering in their engineering doctoral programs. The purpose of this paper was to discuss the various ways that Black womxn experience spirit-murdering in their engineering doctoral programs. The answer itself is two-folded. First, there is the actual incident or experience that caused the ICs' spirits to be murdered. This would be the inadequate racial/gender representation, the discouraging classroom/lab discussions with peers, the toxic advisor/advisee relationships, and the pursuit of PhD milestones. Each of these types of experiences are the acts that cause spirit-murder to occur. Secondly, the spirit-murder itself is the long-term residual impact of these experiences on the Black womxn's health. This would be the lack of sense of belonging, poor attitudes of their academic capabilities, changes in their original professorial intentions, a decline in their emotional and physical health, and a decline in their mental health.

A good way to conceptualize this is to think about a lightning bolt shocking your body. Imagine the electrical currents coursing through your body until you feel your heart stop in that moment. You survive because you are revived by medical services. However, days later, you notice that you are afraid to go outside when there is a storm brewing. You realize that your ability to recall things is decreasing. You begin to have dizziness, muscle aches, and headaches. You then start to have personality changes that others don't understand because they weren't the one shocked by lightning. This is how spirit-murdering works. It is a shock that courses through your system, affecting your physical, mental, and emotional health in ways that impact your ability to function in society as a whole human being.

The spirit-murdering incidents represented in our data happened within the past 3-7 years and already, they have impacted the physical and mental health, career aspirations, and attitudes about self for the Black womxn involved. It is not just what people can see and feel that has an impact on someone's life. All these things work together on a deeper level to develop someone emotionally, mentally, physically, and spiritually. And based on the experiences of our ICs, it is consistent that many of the spirit-murdering acts occur because of the nature of the ivory tower.

The ivory tower, according to Merriam-Webster, represents "a secluded place that affords the means of treating practical issues with an impractical often escapist attitude [or lack of concern]" [33]. Many scholars have begun to see academia, the professoriate, and doctoral education as being part of this ivory tower. Here, in this work, it is the site for, and cause of, the spirit-murdering incidents that impede liberation and progress for Black womxn in these spaces. The lack of concern placed around the needs and inclusion of Black womxn in these spaces causes spaces for spirit-murdering to occur. There was no additional support to aid in the inadequate racial/gender representation present in the programs. There was no direct action taken to help our ICs combat discouraging classroom and peer interactions. No one helped when the ICs had toxic advisor/advisee relationships. No one cared about the injustices that were present because of bias that caused our ICs to fail PhD milestones while being the high-achieving, token diversity staple. The ivory tower, and engineering, were developed without the inclusion of marginalized cultures and therefore is systemically cracked and flawed in the design of its processes and must be recognized as such. It is because inclusion of these groups is

surface-level, and not embedded within our practices, that spirits will continue to be murdered, resulting in more people leaving the academy.

Limitations

It is important to highlight a few limitations with this study. It is important to acknowledge that specific intellectual contributor details could not be provided because of an ethical decision to protect them. It is also important to highlight that data from the artwork and conversations of all five womxn were not included in this paper to be used in future publications. We wanted to solely focus on the specific research question and what was needed to answer it. We acknowledge that this style of writing is not as common in engineering and all terms may not have been explicitly defined but should include a citation or context to help with understanding. This work is part of a dissertation study and will be used in various ways across the next few years.

Implications

Implications reveal that spirit-murdering occurs, often because of the nature of the academic ivory tower. The lack of concern for, and action in response to, the way Black womxn are treated, devalued, and disrespected. This work exposes interactions that spirit-murder Black womxn in engineering doctoral programs and discusses the long-term impact of those interactions. It is an immediate intent that this work will enable future identification of actionable ways that faculty, staff, and peers can disrupt these practices in favor of liberatory practices that seek to foster healing, development, and support for Black womxn in engineering higher education.

Conclusion

The concept of spirit-murdering should be of intentional consideration in aiming to cultivate socially just engineering doctoral programs that disrupt anti-Black and anti-womxn practices and policies. We used a composite narrative to understand and depict the varying ways that spirit-murdering manifests in the lives of five Black womxn engineering PhD students and holders, who we refer to as our ICs. This study revealed that spirit-murdering in engineering doctoral programs primarily occurred because peers and faculty question and devalue these womxn's intellect. Findings showed that the impetus for the spirit-murder occurred in 1) classroom/lab discussions with peers, 2) relationships with advisors, and 3) during the pursuit of PhD milestones. Due to the occurrence of spirit-murder, the impact affected our ICs: 1) sense of belonging, 2) attitudes about capabilities, 3) career intentions, and 4) overall mental and emotional health. Insights from this work could inform the adoption of new practices and policies that support and position faculty, staff, and administrators in fostering inclusive, non-harmful, liberatory experiences for all students, and especially the historically marginalized.

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