”No one has asked me before”: Reflections on understanding compassion fatigue among computer science researchers, teachers and advocates

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Hi, I’m Stacey Sexton. I am a queer, nonbinary, Socialist organizer, educator, facilitator and coach supporting individuals and teams working through conflict, deepening their understanding of and action toward social justice, and finding balance between being human and being a change agent. I have been wrestling with big questions in education in one form or another for 28 years and with formal methodological training for 10 years. I bring decades of experience organizing with issue-based activist organizations, unions, and left-wing political groups. When I’m not letting my mind wander through ideas, I’m keeping myself grounded in my community through participation in local struggles, organizing, and mutual aid work. I genuinely try to get to know the people around me. I love being in nature and I find that sitting quietly among a stand of trees is the closest I can come to sensing the divine.

“No one has asked me before”: Reflections on understanding compassion fatigue among computer science researchers, teachers and advocates (Work in Progress)

Abstract:

The purpose of this Work In Progress paper is twofold: 1) to share the story of the evolution of our research to rehumanize our community of computing education researchers and educators and 2) to share our research findings examining the ways in which people are attending to their own whole humanness as to continue showing up and working toward liberation day after day. What began as a focus on how teams use data to inform equitable programs, policies and practices with a lens on intrateam power dynamics and representation, shifted to seeking to understand how those working towards equity in computing education in an increasingly hostile political climate sustain momentum and persevere. We situate our work in a lineage examining radical self-care, and make a call to invest in our collective professional spaces as *communities of care* that celebrate individuals while remaining rooted in collective healing.

Interviews in 2024 with eight state team leaders focusing on expanding equitable computing opportunities in the K–12 system surfaced how challenging it is to work in a rapidly changing environment. We asked participants in the study what they do for self care. Our interviewees commented they had never been asked this question before. As we headed into a national conference which brings K–12 CS teachers and researchers together, we prepared a short survey to further explore the issue. This survey asked conference attendees “What do you do to care for yourself so you can show up everyday?” Nearly 60% of the 111 respondents reported that they had never been asked this question. Responses included habits of personal care like proper nutrition, exercise, sunlight and professional mental health care. Others discussed grounding themselves in spiritual practice and purpose. A third group discussed maintaining their focus on the “why” by centering their students at the forefront.

This study surfaced two important considerations for the community. The first is how important it is to discuss self-care as a part of professional practice. The responses we received were highly individual and suggest that there is a communal need to recognize and support individuals to prevent the burnout and dehumanization that we — educators, researchers, leaders — collectively face. The second consideration is expanding research activities to include humanizing questions so that we can continue to understand the impact of the political and cultural systems on those who are the focus of our research, including ourselves. There is increased recognition that students are people, which has led to significant increases in investment on student well-being. We are calling for that same level of recognition that educators, researchers and faculty, and policy leaders are also people, and are equally in need of investment and support.

Introduction

In February 2024, eight months after our formal training concluded and the Supreme Court ruled against affirmative action, the 3rd cohort of Fellows in the Cultural Competence in Computing (3C) program gathered on a post-training check in call. Fellows in this program (typically computer science faculty) are expected to 1) learn more social science topics and their connections to academic environments and technologies; and 2) develop sustainable projects (courses, modules, and other activities) at their home institutions. The 3C project should leverage these topics explored in the training, making direct connections between the technologies and the environments, historical contexts, and the long-term impacts on both technology creators and consumers. Ostensibly scheduled to get feedback on our final projects, the discussion was dominated by how difficult it was to design and implement DEI-focused initiatives in a climate of anti-DEI laws, legislation, and attitudes. The conversation turned remarkably personal as we discussed how we were maintaining our commitment to making equitable change within relatively hostile environments.

Our team of three including two evaluators and a program director had been preparing to conduct interviews with computer science education advocates to better understand how teams use data to make DEI policy, program and practice decisions. The goal of this study was to explore how the team dynamics, including potential power differentials, influence how data is defined, gathered and utilized. We planned to collect these data at an equity-focused computer science and engineering education conference. After meeting with our 3C Fellows we decided to add two questions to the end of our protocol:

1. We also know that this work can be stressful, personally and politically and professionally. How do you navigate these challenges?
2. What do you do to care for yourself so you can show up everyday?

We were surprised by the answers including how personal people were in their responses. We were even more surprised how many people said “I’ve never been asked this question before.”

Our 3C training conditioned us to see self care as a radical act and resonated with us where we observe burnout to be rampant among computer science educators and social justice advocates. Audre Lorde wrote “caring for myself is not self-indulgence, it is self-preservation that is an act of political warfare” [1]. Twenty years later, bell hooks similarly wrote of self love as an active endeavor; critical for existing systems of oppression and fostering community resilience [2]. Both of these women help frame the issue of self-care as a radical act. Caring for the self puts the human above capitalist and oppressive systems of labor as it centers humanity and exerts the right to exist as a full being without erasure of self. Self-care protects the ability to advocate for justice, equity and change, making it critical for sustaining movements and communities. Lorde, hooks and others would also remind us that the demand for constant self-sacrifice can be even

stronger and more draining for marginalized groups. Lorde and hooks are not alone in their study of self-care. A Google Scholar search on “self care” articles since 2020 returns over 164,000 articles.

The nature of the fields of computer science and engineering, particularly with the present enthusiasm for Artificial Intelligence (AI) risks decentering the human — where technological advancement and competitiveness in the global workforce supersede the importance of human technological interaction. CS educators are at the forefront of this demand as they are tasked to teach students into the 21st century and beyond, preparing American children to outcompete the rest of the world (in theory). Scholars rooted in higher education continue to face the pressures of winning competitive grants and publishing to increase their own competitiveness within their institutional reward and recognition paradigms. Both of these people (educators and scholars) are involved in our sample.

Education is a caring profession. The nature of educators’ jobs is to nurture and develop the minds of young people, those our future depends on. Computer science has been a rapidly expanding field and schools and districts have had to adapt to new and emerging policies designed to bring computer science education to more, and more diverse, students. Teachers, STEM teachers in particular, are in short supply [3], [4], particularly for underserved schools [5]. It is possible that teachers may be asked to take on more than they are prepared for or wish to teach. In the CS education movement, we run the risk of abstracting the role of a “teacher” to that of a “living AI model” which necessarily strips away the humanity and the dignity of the profession of teaching.

Aside from the increased demands for CS teaching, teachers are experiencing record rates of teacher burnout, which has been defined as “a psychological syndrome emerging as a prolonged response to chronic interpersonal stressors on the job” [6]. The pandemic, budget constraints and testing requirements have created conditions that are untenable for many, and teachers are leaving the field (either through retirement or early departure) faster than they can be replaced. Burnout is relatively well understood among teachers, but it is not limited to K–12 educators. Those in the CS education community (including higher ed, advocates, researchers and evaluators) are expressing similar fears and frustrations when trying to do equity-focused work [7].

Compassion fatigue, a concept which originated in the health care field, is gaining traction in the education space [8], [9], [10]. Compassion fatigue, or a reduced empathetic capacity [9] is particularly pronounced for teachers who are working with students who themselves have experienced trauma [10] and may be particularly pronounced for those working in a racialized context [11]. As this stress is passed from student to teacher, we posit it can also be passed from educator to researcher.

Understanding the importance of self care in the context of CS for educators, but also the lack of explicit conversation around this topic, led us to the focus of the work presented herein. First, we seek to understand if discussions of self-care are as novel as we experienced and second we want to understand how CS advocates conceptualize self care. This exploration may lead to a future study that is more robust. Finally, we as researchers and evaluators of equity-focused CS education initiatives call upon ourselves and colleagues to include questions of self care and preservation as a regular part of our work.

Methods

The data for this project was generated over time through interviews and a short survey. The semi-structured interviews provided an initial understanding and led to the idea of a shorter survey that we could administer to a larger sample.

Both the interviews and the surveys were collected during attendance at professional conferences. The interviews were conducted at the co-located Expanding Computing Education Pathways (ECEP) Summit and Research in Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT) Conference held in May 2024. The ECEP Summit was convened to bring together state teams of policy makers, researchers, and computing and education experts to share and plan their progress on institutionalizing and operationalizing K–12 computing education in their states. RESPECT draws leading researchers and some practitioners focused on equity in computing education.

We chose these venues for a few reasons. One, our initial research trajectory aimed to understand the nuance of team diversity among the ECEP state teams as it relates to their teams' being able to discuss and address inequity in computing education. Second, both ECEP and RESPECT intentionally focus on equity and support a diversity of thinking and approaches to computing education. We wanted to ensure that interviewees would have a basic familiarity with and non-hostility toward equity in education conceptually, even if the specific understandings of and approaches to equity differed across attendees and between state teams. Lastly, having the attendees gathered together over several days provided an opportunity to concentrate the data collection and facilitate in-person interviews.

For the semi-structured interviews we spoke with eight individuals. Interviews lasted between 15–55 minutes, with an average interview time of 35 minutes. Interviewees came from a variety of contexts, but most identified as researchers and most were based in a university setting. Two interviewees were based in non-university research centers. Interviewees primarily came from the eastern side of the United States as well as Puerto Rico. Six out of eight interviewees identified as people of color; two interviewees spoke Spanish as their first language.

The responses provided useful insights into how members of the K–12 computing education community were thinking about how their relationships with close colleagues impacted their teams' ability to talk about and navigate issues of diversity, equity, and inclusion in their work.

The final questions in our interview protocol read "We also know that this work can be stressful, personally and politically and professionally. How do you navigate these challenges?" And "What do you do to care for yourself so you can show up everyday?" It was this pair of questions that offered the most surprising and impactful data. Our interviewees commented they had never been asked this question before and several became emotional during their responses as they reflected on their own struggles with physical and mental health. These responses to the questions influenced the aims of our research to focus significantly on how those of us in the education equity space are able to ground ourselves in order to reduce burnout and care for ourselves in the work, thus avoiding compassion fatigue.

We knew that we would have another opportunity to access a large pool of potential respondents at the July 2024 Computer Science Teachers Association (CSTA) conference, which brings together K–12 Computer Science teachers. This conference was also co-located with the NSF Principal Investigators Meeting for all CS for All: RPP awardees later in the year. The combined audience included K–12 educators, researchers, university faculty, and other K–12 computing education professionals. The strategy of utilizing pre-existing venues for data collection significantly reduced the burden of outreach and gave us wider access to potential respondents than our own network would have afforded.

To best engage this audience, and to take advantage of the fact that we had access to a booth in the exhibition hall, we decided to create a short two-question paper survey for attendees. This survey asked, "What do you do to care for yourself so you can show up everyday?" and "Has this type of question been asked of you before?" While the survey itself was voluntary, we eventually figured out a good mechanism to prompt completion — we handed out branded pens and encouraged attendees to "take a pen and test it out on this survey!" Our findings below demonstrate the response to this approach.

The open-ended survey responses were reviewed by two researchers. Each researcher independently read through the responses and identified recurring themes or patterns based on the content provided. After this initial review, they met to discuss their findings and compare the identified themes, ensuring consistency and agreement in the coding process. Any discrepancies were resolved through discussion and consensus. The final set of themes was then categorized and used to draw conclusions about the survey data.

Findings

One hundred and eleven people participated in the survey. The topic is clearly novel as 64 (58%) of respondents report never having been asked about their self care before (Table 1). Additionally, 67 of our respondents (60%) requested we share with them the results of our survey, suggesting that there is widespread interest in the topic. Though the survey was designed to be completely anonymous, an additional 21 (19%) gave their email address in an offer to further discuss the issue should we pursue additional research.

Table 1: Response to "Have you been asked [about self care] before?"

	N	%
Yes	44	39.6%
No	64	57.7%
No response	3	2.7%

Responses to the primary survey question "What do you do to care for yourself?" yielded several categories of self care:

Physical Well-Being:

- Exercise: Running, walking, yoga, weight lifting, Zumba, karate, and climbing. "Regular exercise, weight lifting and getting outside"
- Rest: Prioritizing sleep, massages, and soaking in the tub. "I end the day with a book while soaking in the tub with a cup of tea — every day!"
- Nutrition: Eating healthy, and treating oneself to good food. "Eat tacos with friends"
- Grooming: Hair care days, nail appointments, skincare routines, and pedicures. "Bi-monthly massages and therapy"

Mental and Emotional Health:

- Reflection and mindfulness: Journaling, meditation, gratitude, and box breathing. "Journal in the morning"
- Downtime: Watching TV, playing video games, and relaxing with hobbies like knitting, sudoku, and gardening. "I take the time to garden and relax"
- Therapy and antidepressants: Acknowledging the importance of mental health support. "Take my antidepressant!"

Social and Relational Activities:

- Spending quality time with family, friends, and pets. "Hang out with youth and laugh at my cat"
- Engaging in fun, shared activities like board games, cooking, or going to concerts. "Concert, travel and spa days"

Creative Outlets:

- Art and creative projects: Painting, sewing, and making personalized versions of work projects. “Taking time to create art in my art room where I can let my brain relax.”
- Music: Listening to or playing music for relaxation. “Music and caffeine are my go-to.”

Setting Boundaries:

- Unplugging after work, keeping work at work, and taking breaks.“Try to leave my laptop at work at least one night a week.”
- Adjusting schedules for more personal time, like taking Fridays off or setting hard end times for work.“I rest and treat it as legitimate work, forgiving myself if that doesn’t feel convincing.”

Spiritual and Purposeful Practices:

- Daily prayer, expressing gratitude, and focusing on life’s big picture. “I pray daily and express gratitude for the gift of life.”
- Reflecting on personal motivations and the “why” behind their actions. “Hold close to the beautiful moments of solidarity.”
- Routine: “A bowl of fruit and wordle in the AM.”

Unique Routines and Strategies:

- Morning routines: Coffee, reflection, Wordle, or gardening. “Start the day watering the school garden”
- Small rewards: Using stars or stickers for work accomplishments. “I give myself stars/stickers for doing work”
- Focusing on joy and positivity, even in small daily moments.“Learning makes me happy, along with family time, good food, and exercise.”

Finally, many participants noted struggles with consistent self-care, citing “not enough” time, or difficulty prioritizing themselves.

Discussion

The concept of radical self-care is not new; however it appears to be newly explored in the CS education community. Our research shows that self care is primarily being practiced on an individual level, done privately. We wonder, what could self care look like if it were practiced at the community level? What could our professional world look like if the communities that we are part of were first and foremost *communities of care*? We assert that acknowledging and sharing the importance of self care and the ways in which we as individuals practice it is itself a radical act.

We raise the notion that not asking our colleagues about self care to be an unspoken, or unacknowledged routine violence. When the systems of a profession dictate focus on a particular outcome or output (whether that be research funding, publications, or a student meeting a predetermined learning objective) without also having the ability to see, let alone protect, the people that are core to the functioning of that system, that is violence. Our participants were

eager to talk about their practices, and were grateful to have been asked the question. It leads us to wonder just how much of the self is separated from the professional identity for the participants in our study? We understand and appreciate that people are complex and boundaries are important; however, in an industry that is clearly harming people as evidenced by the high rates of burnout, what is the ethical obligation to support and address this routine violence? In a society that demands that we give so much of ourselves to a profession, we suggest that our professional spaces should then be required to give something back to our humanity.

While it is wonderful that the participants in our study are able to find ways to remain grounded, to stay connected, to keep their spirits and energy up, how much more impactful could these practices be if they were acknowledged and accommodated by our professional communities? If we were able to re-center our own humanity in the work — remember that before we are researchers or educators or scholars we are humans with real needs, and feelings, and that as humans we are all deeply impacted by the socio-political systems in which we are enmeshed — how could that change how our professional spaces are organized?

The process of doing research can often be an exercise in healing our own wounds by asking the questions of others that we wish would be asked of us. Opening the door to talking about mental health, acknowledging the fact that doing equity work can also invite harm to those who do it, and inviting vulnerability from colleagues is risky in and near education (at all levels), where suffering for the work is a badge of honor. It was possible that people would not be open to sharing with us, that our inquiries could have been rejected and that the culture of not asking could have become further entrenched. But choosing to pivot our research trajectory so significantly, and asking others about their health and well-being was a risk that we took in order to get closer to the work that we find meaningful, valuable, important, and impactful in the communities that we are part of. We allowed ourselves to be influenced by what we were learning which itself was part of our self care and growth.

And in the end, the risk paid off. We have been able to open the door for further conversations. We have the potential to shift the dynamics of our professional world to ensure that ours and others' humanity is not put to the side for the sake of the work, but instead is treated like the integral part of the work that it is. We can now continue to ask and advocate for practices that promote care and well-being in our professional communities and gatherings. We can structure ourselves to support not only individuals' approaches to self-care, but to configure our communities in such a way that community care — care for one another — become a central aspect of what communities do and how they function.

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