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Reframing Stress Detection Proxies in Social Media Mental Health Prediction for Perinatal Black Women

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Abstract

With Black women facing disproportionately worse health outcomes during and after pregnancy, innovations in digital mental health provide an avenue to support the mental wellbeing of this population. Importantly, the advent of social media and its popularity among perinatal Black women for mental health, highlights social platforms as an avenue to learn about this population’s stress expression

and coping behaviors. We report the results of a mixed method study analyzing how stress experiences and coping patterns manifest online among 114 Black women (M age = 30.2) during and after pregnancy. By triangulating the results of survey and social media data analyses, we find that while participants experience stress, there exists a disconnect between their reported stress experiences in their survey data and their disclosures of stress on social media. Notably, while participants (n=17) reported experiencing moderate to high levels of perceived stress, they rarely discuss this stress in their social media posts. Using the stress process model and Superwoman schema to guide our analysis, we highlight patterns in online stress disclosure and coping from our participants, and offer implications of our findings for the design of digital mental health interventions.

Keywords: maternal mental health, Black women, digital mental health, stress, coping, mental health prediction

1 Introduction

Maternal mental health disparities between Black mothers and their white counterparts continue to persist in the US. Black and Hispanic mothers record higher prevalence of depressive symptoms during pregnancy [1], which are tied to poorer birth outcomes for both children and mothers during this period. Moreover, perinatal mood and anxiety disorders during pregnancy are tied to low birth weights of infants and a higher rate of spontaneous preterm birth [2]. Public health research also reports a positive relationship between stressful life experiences and depressive symptoms during the perinatal period, with mothers who report at least 2 stressful life events being 3.7 times more likely to experience depressive symptoms [3]. Prior work demonstrates that Black women experience high levels of stress during the perinatal period [4], highlighting a multitude of stressors that Black women face as they transition into motherhood including poor neighborhoods, racial discrimination, interpersonal challenges (e.g., conflicts with loved ones, feelings of not being supported) [5], food insecurity [6], racialized pregnancy stigma [7], work-family balance, financial stress [8], and the COVID-19 pandemic [9].

Even as Black women experience worse mental health outcomes, they also demonstrate a lower utilization of mental health support resources. This is partially due to the adoption of a Superwoman identity, an identity that compels some Black women to convey an image of strength in order to navigate societal expectations and counter stereotypes without sources of support and aid [10]. This cognitive and behavioral pattern emerged in response to the historical and ongoing oppression faced by Black women, as a strategy to cope with and endure the harsh realities of gendered racism [10]. While the Superwoman identity can be protective by fostering resilience [11], research shows that it can also contribute to negative outcomes, such as emotional exhaustion and poorer mental health [12, 13]. This dual nature of the Superwoman Schema highlights the nuanced ways in which coping may influence stress processes for this population, suggesting that some coping strategies can simultaneously serve as a buffer against stress and a source of additional strain. These dynamics underscore the

importance of developing alternative, culturally responsive approaches to identifying stress and mental health needs within this population.

Indeed, there is increasing evidence that stress is not an isolated phenomenon but is interconnected and shaped by sociocultural factors (ex. Superwoman ideals) as well as socioeconomic inequities. As Pearlin (1989) explains: “to understand how stress comes about, we do not always have to reach out to the exotic, rare, or eventful. We need only to take a careful look at the structure of everyday experience in the pursuit of everyday life” [14]. Social media now constitutes a major part of everyday life, shaping how individuals communicate, work, and navigate social relationships. As a result, researchers have increasingly demonstrated the promise of using social media data to predict mental health states such as stress, depression, and anxiety. Extant research has explored how social media impacts mental health [15–17], self-esteem [18, 19], and mood [20, 21]. Similarly, research has shown that people’s mental states also influence their online participation [22–24]. This body of work reveals that online behaviors provide insights into people’s mental health experiences, motivating the development of technologies aimed at predicting mental health outcomes based on online activity [25–27]. Importantly, online behaviors are shaped by social factors such as gender and culture [28–33], indicating that online behaviors are not uniform across different demographics, but rather influenced by societal norms, values, and expectations.

A large portion of the work on mental health prediction through social media has been developed using general or majority populations, with limited attention to the lived experiences, cultural expressions, and social contexts of Black women. As a result, existing models may overlook salient stressors or misinterpret how distress is expressed online, limiting their effectiveness and potentially reinforcing inequities. This highlights the need for culturally aware approaches when studying mental health via online behavior and social media. Recognizing this need, we build on prior research on mental health and social media behavior to consider the context of Black pregnant and postpartum women. In this paper, we examine the extent to which social media posting reflects stress experiences among Black women, with a particular focus on the perinatal context. We use these insights to adapt an existing mental health prediction model, investigating which features and factors better capture stress signals in this population. By centering perinatal Black women’s experiences, this study aims to inform the development of more culturally sensitive computational approaches to mental health assessment and to highlight the importance of equity-aware model design in health-related technologies.

2 Results

We report findings from two phases of data collection from May 2022 to November 2023: 1) surveys measuring mental health outcomes, stress experiences, coping strategies and social media use with 114 perinatal Black women and 2) follow-up surveys measuring superwoman identity adoption and social media data sharing from a subset ($n = 17$) of our broader participant pool. Based on participants’ reported stress and mental health outcomes, we analyzed social media data to identify the extent to which disclosed stress emerges online and can be predicted by machine learning algorithms.

Table 1 Participant overview

Item	Value	Count (n=114)
Current Age	18 - 19	3
	20 - 29	47
	30 - 39	59
	40 - 49	5
Marital Status	Married	71
	In a relationship	19
	Single/Never married	19
	Separated divorced	4 1
Education	Some college	25
	High School	24
	Graduate/professional degree	20
	Trade/technical school	40
	None Eleemetary School	3 2
Employment	Employed	70
	Unemployed	44
Number of pregnancies	< 2	32
	2-4	62
	> 4	20
Number of children	1-2	64
	3-4	38
	> 4	12
Shared Caregiving Support	Yes	51
	No	62
	N/A	1

To participate in the study, participants had to be women aged 18 or older who self-identified as Black, were currently pregnant or had been pregnant within the past year, were located in the Southeastern United States, and had a personal Facebook account.

2.1 Demographic Characteristics (n=114)

A total of 114 women participated in this study, and their demographic information is detailed in Table 1, with a majority reporting trade or technical training 35.1%, followed by those with a college degree (21.9%) or a high school education (21.1%). Graduate degrees were held by 17.5% of participants. 61.4% participants were employed, and 62.3% were married, with 16.7% participants reporting being in a relationship and 16.7% reporting never married/single. Just over half of participants reported they did not have shared caregiving support (54.4%) despite majority of the participants being partnered.

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⁰Names of participants used throughout the paper are pseudonyms and do not reflect their real names

2.2 Patterns of Stress, Coping and Social Media Use in Perinatal Black Women

2.2.1 Stress and Coping Characteristics (n=114)

To understand participants' stress and coping experiences, they completed surveys measuring perceived stress, stressful life events, COVID-related anxiety, depression, PTSD, and religious coping. Perceived stress scores averaged at 15.58 (SD=8.24). Using the established benchmark of 13.6 as the population mean for perceived stress, 51.8% of participants scored in the elevated range. Participants reported an average of 2.38 stressful life events (SD=1.78), with 31.6% reporting more than two events, indicating that about a third of the study sample is at 3.5 times at risk for developing higher rates of depression [3]. COVID-related anxiety was low overall (M=3.05, SD=4.02), with only 8.8% of participants scoring in the high COVID-related anxiety range (≥ 9). Similarly, postpartum depressive symptoms for most of the participants on the EPDS scale was mild with a mean of 9.58 (SD=6.63), with only 30.7% scoring at or above the clinical cutoff of 13 for probable depression. Negative religious coping scores averaged 15.63 (SD=6.88), and 67.5% of participants scored in the moderate-to-high range (≥ 11). Positive religious coping was also strongly endorsed (M=22.89, SD=5.77), with 73.7% scoring in the high range (≥ 22). Overall general self-efficacy scores averaged 32.60 (SD=5.54) with 68.4% of participants scoring in the high-efficacy range (≥ 31).

2.2.2 Social Media Use Patterns - Past 2 weeks (n = 114)

Social media use over the past two weeks showed moderate variability across the sample. Participants reported an average use score of 3.28 (SD=0.94; median=3.00). Most participants reported spending 1–3 hours per day on social media (n=63), with additional participants reporting 4–6 hours (n=19) or more than 6 hours per day (n=16). Smaller proportions reported under 1 hour (n=13) or no social media use (n=3) during the same period.

2.2.3 Associations between perceived stress and social media use

High social media use was defined as spending more than three hours per day on social media. Most participants reported low or moderate use (69.3%, n=79), while 30.7% (n=35) reported high use. Overall perceived stress was not associated with higher social media use ($p=0.933$), indicating that stress levels did not meaningfully differentiate between those who used social media for more than three hours per day and those who did not. However, partnered status was a strong predictor of social media behavior. That is, partnered individuals reported substantially lower social media use overall ($p=0.005$). A statistically significant finding between perceived stress and partnered status showed that, within partnered individuals, higher stress was associated with higher social media use ($p=0.007$). No other demographic covariates or interaction terms were significant. The overall logistic regression model fit was statistically

significant $p < 0.001$ and explained 23.4% of the variance in social media use (McFadden's pseudo- $R^2 = 0.234$), suggesting that partnered status and its interaction with stress contributed meaningfully to patterns of social media use amongst our sample.

2.2.4 Associations between stress and caregiving support, and social media use among partnered moms

Independent sample t-tests were used to examine whether caregiving support was associated with differences in stress and social media use among partnered mothers ($n=90$). Partnered mothers without caregiving support reported significantly higher perceived stress ($M=17.80$, $SD=7.68$) compared to those with caregiving support ($M=12.06$, $SD=6.89$), a statistically significant difference ($p=0.0004$). Social media use showed a similar pattern: mothers without caregiving support reported higher average use ($M=3.38$) and were more likely to exceed three hours of daily use (37.5%) compared to those with support ($M=3.06$; 14.3% high use). Correlational analyses further indicated that higher stress was associated with higher social media use among partnered mothers ($r = 0.323$, $p = .002$), and lack of caregiving support was associated with higher stress ($r = 0.370$, $p = .0004$). However, lack of caregiving support on its own was not significantly associated with social media use directly ($r = 0.186$, $p = .0802$). These findings suggest that partnered mothers without shared caregiving support experience elevated stress, and this heightened stress is linked to greater social media use within this subgroup.

2.3 Stress and Coping Expressions of Perinatal Black Women on Facebook.

As our earlier analysis suggests, our participants experience stressful life events, and perceive their lives to be stressful. At the same time, participants demonstrate high religious coping and self-efficacy. Moreover, partnered mothers without caregiving support experienced higher perceived stress, and greater social media use. To further understand how these experiences may emerge online, we engaged a subset of our broader participant group ($n = 17$) to share social media posts over a three year period and complete a survey measuring their adoption of a superwoman identity.

Within this participant pool, 12 women were partnered; 12 women had greater than high school education; 12 were employed; 3 women had less than 2 pregnancies, 9 had 2-4 pregnancies and 5 had more than 4 pregnancies. 12 women had more than 2 children, 4 women had less than 3 children. These women reported high levels of perceived stress, multiple stressful experiences, with most participants scoring below benchmarks for depression ($n = 13$) and PTSD ($n=10$). Table 2 shows participants' average scores on stress and anxiety measures. Figure 1 shows the number of participants that score above benchmarks for the respective survey measures except the Index of Race-Related Stress (IRRS, which has no established benchmark). We use population means as a benchmark for the PSS and 2 as a benchmark for the number of stressful life experiences as 3 or more stressful life events is correlated with a 3.5 times higher rate of depression [3].

Table 2 Participant Responses to Stress Measures

Scale	Average	s.d.
Stressful Life Experiences (SLE)	3.0	2.5
Perceived Stress Scale (PSS)	19.1	11.0
Index of Race-Related Stress (IRRS)	43.7	21.3
Edinburgh Postnatal Depression Scale (EDPS)	10.7	6.4
PTSD	29.4	22.3
COVID-19 Anxiety Scale (CAS)	1.52	-2.8

According to Pearlin’s stress process model, life events can cause stress by causing role strains, which in turn amplify the experience of stress for individuals. Role strains are the “objective difficulties” or “subjective reactions to such difficulties” that make it difficult for individuals to perform socially assigned roles [34]. Past work suggests that mothers experience role strains as a result of factors like: having multiple children, having sick or disabled children, work challenges like job disruptions and high workload [35], family conflict, daily hassles [36, 37], and financial strain [38]. We find that for our participants, financial and interpersonal difficulties (e.g., family conflict) were the most common sources of role strain. Specifically, the most common stressful life event reported was the financial challenge of “I had a lot of bills I couldn’t pay” (n=13). The second most prevalent challenge was interpersonal in nature: “I argued with my husband/partner more than usual” (n=8). Other reported challenges were work stressors (“I lost my job even though I wanted to continue working” (n=6)), family concerns (“A close family member was very sick and had to go into the hospital” (n=5)), and stressors that had familial, work, and financial implications (“My husband or partner lost his job” (n=5)).

These findings demonstrate that similar to our broader study population (n = 114), not only did participants experience a range of stressful events, but they also subjectively assessed their lives to be stressful, and some may also face emotional and mood challenges. Given these findings, we consider how the experiences of stress for this subset of participants may manifest on social media platforms, which act as a site for social connection and support for Black women [39].

2.3.1 Stress Disclosures Online (n = 29,440 social media posts)

While our findings highlight that most participants have experienced multiple stressful life events in the past year, experienced race-related stress, and subjectively assessed their lives to be stressful, these disclosures are not present in their online posts; in particular, only 0.4% of posts (n = 29,440) from our template analysis contained direct disclosures of stress (e.g., “*chile im stresssed*”–Dreya) across all participants.

For all participants, there is no reference to any of the stressful life events they report in the survey. Further, no participants expressed race-related stress on Facebook, even though all participants reported some race-related stress according to the IRRS. Notably, in an open-response question asking participants to describe

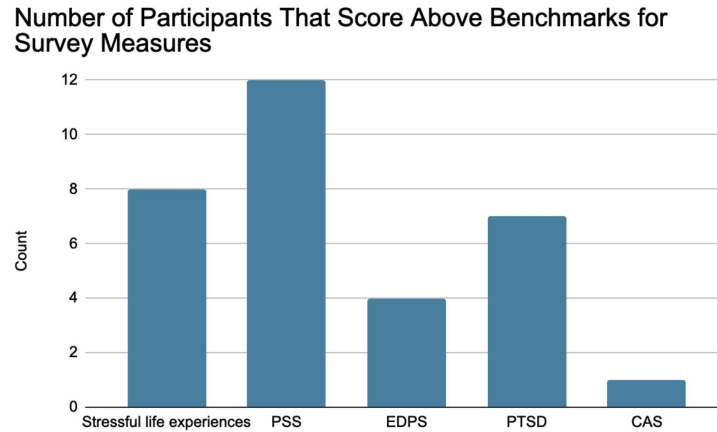


Fig. 1 Number of Participants That Score Above Benchmarks for Survey Measures.

their most impactful experience with racism, one participant reported experiencing race-related stressors during her pregnancy period:

When giving birth to my son, I felt that I was rushed and not properly educated/informed on what was happening to make a good decision. I was therefore rushed into a Caesarean section that I may not have needed. My doctor also stripped my membrane before necessary without asking or consenting with me—Ashley

Here, Ashley describes challenges with her medical care during childbirth—an experience that reflects wider trends Black women face in accessing quality care during pregnancy due to institutionalized racism [40]. However, this experience is completely absent from her Facebook posts, even though she makes a dedicated post about her birth experience online:

2 weeks ago my sweet baby blessed us with his presence. we are enjoying every second with him. even though we are getting no sleep we are full of love. recovery is slow, but im getting back to normal and adjusting every day. i can't wait to return to my hour long yoga sessions—Ashley

From our topic modeling analysis, which highlights prevalent themes in participants' data, we find that participants' posts address a variety of topics. However, stress is not a topic in any of our participants' posts. We identify pregnancy as a prevalent topic in participants' data, but observe in our thematic analysis that participants' posts about pregnancy focus on the joys of motherhood, with little discussion of pregnancy-specific stressors. Nonetheless, one participant's posts did reveal the presence of depression and anxiety moods in the context of pregnancy. This participant, Dreya expressed,

my emotional and mental capacity is exhausted! im drained. i just want to be left alone. Its tough struggling with depression and anxiety, but being pregnant at the same time is really exhausting me—Dreya

Here, this participant describes the challenges of managing depression and anxiety in conjunction with the experience of pregnancy. This report aligns with prior work

that demonstrates that pregnancy may amplify symptoms of anxiety and depression in mothers [41]. In total, we identify the 10 most prevalent groups of topics in participants' data to be: birthdays (923), baby/child (327), feelings/mood (323), family (185), food (138), leisure (132), religion/prayer (102), location (91), hair (76) and pregnancy (64). Figure 2 shows word clouds representing each topic.



Fig. 2 Top 10 Topic Categories in Participants' Posts

2.3.2 Coping Indicators Online (n = 29,440 social media posts)

As emphasized by the stress process model, to have a complete view of stress experiences, we must also consider stress management resources that mitigate stress experiences in individuals. In our analysis, while participants do not disclose stress online, they do demonstrate a variety of coping strategies, with emotion-focused and avoidant coping behaviors [42] being especially prevalent. These coping strategies were present in response to both pregnancy-related and non-pregnancy related stressors.

- **Emotion-focused Coping:** Through our template analysis, we find emotion-focused coping in participants' posts. Specifically, we find that participants seek social support for emotional reasons (e.g., sympathy), apply positive reinterpretation of stressful events, and turn to religion in 1.8% of their online posts. For example, participants shared their experiences with the loss of loved ones with their Facebook audiences; Sherry shared the loss of her grandmother,

I cried all day but been having a smile on my face, you not suffering anymore! Your with our father who gone take very good care of you. . . im mad none of us knew she was sick, and she didnt tell anyone, i was just a block away & i wish i coulda spent more time. . . this shit is killing me!... #heavenwelcomedanangel #loveyougranny #rip-Sherry

In this post, Sherry expresses her feelings after the loss of a loved one, creating an opportunity for others to connect emotionally with her and offer sympathy. Thus, the online context is used as an avenue to seek social support. We also found that participants relied on their religious ideologies as a stress-coping mechanism. For example, Zavia shared,

Sometimes god tests you so you know how strong you are. . . success is so much better when it involves struggle. Prayer works when it seems nothing else is going how its supposed to - Zavia

In this post, Zavia uses her religious ideology to reframe stressful experiences as a testament of strength. While this post is not specific about Zavia's stress experiences, she uses the online context to affirm her religious beliefs, in relation to her stress experiences.

Interestingly, we find that while participants do not directly refer to negative states of mind/moods when describing stressful events, they may couple negative events with positive emotions and attitudes. In doing so, they often emphasise positive reframings of stressful situations while de-emphasising their experiences of stress. For example, Jacklyn shared:

My migraines came back this morning, but i still got up and made my family brunch. Im listening to gospel in the kitchen this morning on youtube. . . getting that devotion time in!-Jacklyn

In this post, Jacklyn alludes to a negative experience with migraines, but concludes on a relatively positive note, expressing enthusiasm, in spite of the experience. Here, this participant's post refers to an unpleasant experience; however, any stress or negative emotions due to these experiences are not directly expressed. Instead, the focus is shifted to her positive feelings.

- **Avoidant Coping:** We observe that participants may allude to stressful events by venting online. In these cases, participants do not offer full narratives about specific experiences that cause them stress, but instead react to these experiences online. This form of coping was the most prevalent in our dataset—we observed the presence of venting in 3.3% of participants’ posts. For example, Harriet exclaimed in a post,

Oh bullshit! Kelly you can just stay in my stomach for however long you want—Harriet

In another post, she also expressed,

Me and Kelly every night we’re awake every two damn hours—Harriet

In these posts, Harriet alludes to challenges she may be experiencing in pregnancy (Kelly is her child) and after childbirth. However, the nature of the challenges is not explicitly described (for example, as we may see in a storytelling post). Instead, she shares an emotional response to these experiences online. In these posts, participants rely on tone, communicated through word choice (e.g., use of expletives), use of punctuation (e.g., exclamation marks, multiple question marks) and style choices (e.g., stressing words by extending the last “letterrr”) to convey an experience of stress. We observe then that our participants may also use their online posts as an opportunity to cope with stress through venting. This behavior diverges from past work that suggests that Black women are less likely to adopt avoidant coping strategies, compared to other coping strategies [43] raising the possibility that the affordances of an online context may engender new coping behaviors among this population.

- **Resilience Coping (Superwoman Attributes)** Prior work demonstrates that Black women often engage in unique coping practices compared to other racial groups [44]. These practices frequently include minimizing emotional expression and prioritizing caregiving responsibilities over personal health [45–47]. These coping strategies emerged as part of Black women’s adoption of superwoman attributes, which compelled them to portray an image of strength and resilience. Within the subset of participants who shared social media data, we found that all participants scored high (n=8) or moderate (n=10) on the overall Superwoman schema scale, indicating that participants exhibited traits that align with a Superwoman identity. Table 3 shows the average scores for each of the dimensions of the Superwoman identity endorsed by participants. While Figure 3 shows the number of participants that scored high, moderate and low on the various Superwoman schema subscales. We observed these attributes in participants’ online storytelling about challenges they experience. Specifically, we observed that participant sharing about their challenges in motherhood and caring for children demonstrated an image of strength and intense motivation to succeed. However, participants’ adoption of a superwoman identity is also conveyed in non-motherhood/pregnancy related posts, again speaking to the importance of considering the complete context of participants’ lives, outside of pregnancy, to avoid flattening their experiences based on one facet of their identity (pregnancy).

Our template analysis revealed that of the 5 subscales of the SWS, the *obligation to manifest strength* emerges most prominently in participants’ data, representing

Table 3 Participant Responses to Superwoman Subscales (N = 17)

Scale	Mean	s.d.	Severity
Overall	71.50	15.1	High
Strength	15.39	2.06	High
Suppress	10.78	4.11	Moderate
Resistance	14.17	4.16	High
Motivation	14.11	2.97	High
Help	17.06	5.82	Moderate

Scores on SWS Subscales

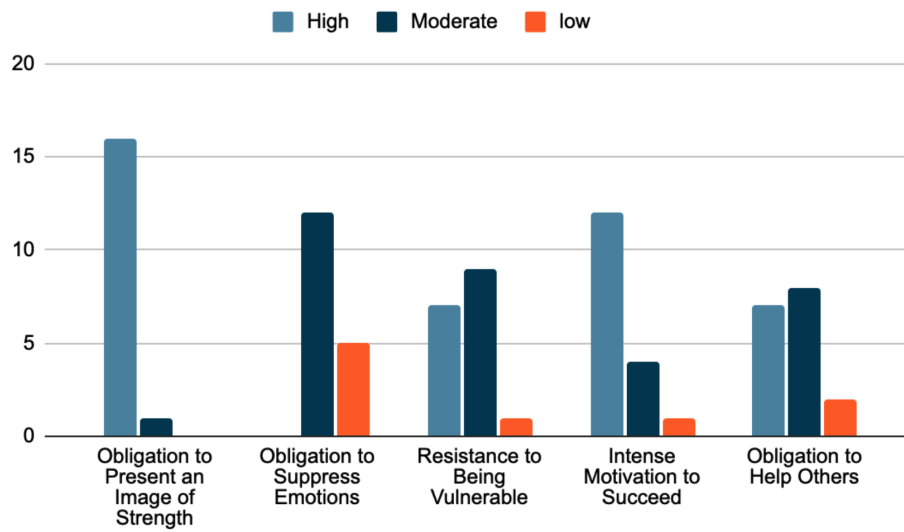


Fig. 3 Number of Participants Scoring High, Moderate and Low on SWS Subscales

58% of all posts that aligned with the Superwoman attributes. In some posts, participants directly refer to themselves as strong; for example, Jacklyn posted,

The special education process is such a huge beast. Where shall i place my scholar who is a rollercoaster? She is high in some aspects and low in others. I'm mentally exhausted, but I'm strong. Keep my cape on!-Jacklyn

Zavia also shared,

Nah fr it takes a strong person to care for their kids-Zavia

These posts illustrate how participants assert strength even while describing significant challenges. Notably, 31% of posts portraying strength also include

positive reframing of stressful experiences, suggesting overlap between the obligation to appear strong and other coping strategies. This pattern aligns with survey findings: 75% of participants who rely on social media for mental health report trying to portray themselves as strong women online, half report hiding pregnancy-related challenges, and most participants (n=16) score high on the SWS subscale measuring obligation to manifest strength.

We also observed that some posts reflected *intense motivation to succeed*. Particularly, participants may express a desire to persevere in spite of challenges or express affirmations about their capabilities in posts. For example, Zavia shared,

Going to work tired as hell, but gotta make money for me and my kids—Zavia

And Harriet shared,

im tired but grateful! this year my girls went to 3 diff beauty stores and 4 diff nail techs, and my boys had to fix their locs. ive driven all over from four diff cities all in a weekend. my babies deserve it all! i didnt take a pic for the first time. 4 diff buses—Harriet

These posts convey resilience and determination in the face of exhaustion, often framed around providing for children. Correspondingly, 63% of participants reported trying to impress others in their online posts, and most participants (n=16) scored moderately (24%) or high (71%) on the SWS subscale measuring intense motivation to succeed.

Posts emphasizing strength and motivation frequently intersect with motherhood, echoing prior work describing how mothers may feel compelled to project a “supermom” image in response to unexpected challenges [48]. Importantly, Superwoman attributes are not limited to motherhood-related contexts. While fewer posts reflected *resistance to being vulnerable*, this theme emerges in discussions of interpersonal relationships.

#trustissues i dont really trust people... i expect the worst all the time... since learning #yoga i have started to question laws about trust... are we meant to be vulnerable? Thats how i feel when i try trusting someone... i dont like it so it comes off like i have the the ‘f it’ state of mind... most of the time, i do, but thats my hard outer shell So i ask y’all, how easy do you find it to trust?—Paige

Here, we see Paige engage with her audience about her personal struggles with trust, directly disclosing her personal resistance to being vulnerable. Although this post is itself vulnerable, language such as “hard outer shell” and discomfort with vulnerability aligns with the Superwoman attribute of resisting emotional exposure. Overall, our findings show that participants’ posts reflect multiple attributes of the Superwoman identity, with the obligation to manifest strength most salient, consistent with participants’ high SWS scores on this subscale. These attitudes are especially pronounced in motherhood narratives, where pressure to demonstrate resilience may be heightened [48, 49]. At the same time, Superwoman attributes extend beyond pregnancy and parenting, indicating that the Superwoman Schema functions as a broader stress-coping orientation rather than a context-specific response.

2.4 Predicting Stress Outcomes through Social Media

Taken together, our findings suggest a systematic mismatch between lived stress experiences and how those experiences are expressed online: while participants report high levels of stress in surveys, they rarely express stress explicitly in public social media posts. Instead, their social media behavior demonstrates more coping behaviors than stress disclosures. Guided by these observations, we adapted a standard social media-based mental health prediction model to center indicators of coping rather than direct expressions of stress. We then evaluated whether these coping-focused signals could more effectively predict participants’ self-reported stress levels. This adjusted model achieved 80% prediction accuracy, substantially outperforming the unadjusted baseline model, which achieved only 50% accuracy. These results suggest that stress prediction models that rely primarily on overt expressions of distress may systematically underperform for populations whose stress is expressed indirectly through culturally situated coping narratives. More broadly, this finding highlights the importance of aligning modeling targets with how different groups communicate psychological states online, rather than assuming uniform patterns of disclosure.

2.4.1 Performance of sentiment-based and baseline machine learning models

First, we evaluated whether state-of-the-art sentiment and baseline machine learning models could infer users’ underlying stress state from their social media posts, using Perceived Stress Scale (PSS) scores as ground-truth labels. Because participants’ posts were overwhelmingly positive, neutral, or resilience-framed and based on the survey results, we did not expect there to be explicit emotional distress language, the sentiment-based models performed poorly as expected. DistilBERT and RoBERTa in particular showed low performance in inferring users’ stress state, with RoBERTa performing slightly better (Accuracy=0.504; F1=0.670). Baseline machine learning models using simple linguistic features such as word count and word length also demonstrated low predictive performance. Logistic regression achieved an Accuracy of 0.428 (AUC=0.337), and the random forest model showed only marginal improvement (Accuracy=0.440; AUC=0.427). Zero-shot and few-shot prompting using Gemini 2.5 Flash similarly yielded low accuracy at 30%. These findings suggest that traditional sentiment-based and general-purpose machine learning approaches may not be sufficient for inferring stress in perinatal populations whose online communication norms minimize or mask emotional disclosure.

2.4.2 Performance of Fine-tuned RoBERTa model

Given the limited performance of sentiment-based, baseline, and zero-shot LLM approaches, RoBERTa was fine-tuned directly on the perinatal social media dataset using PSS scores as labels. The fine-tuned model demonstrated substantially improved performance compared to the original pretrained model. Accuracy increased from 0.504 to 0.828, and F1 improved from 0.670 to 0.825. These results suggest that domain-specific fine-tuning may be essential for inferring underlying stress states in perinatal populations, particularly when emotional distress is not explicitly expressed

in language. The findings also highlight the need for follow-up human-in-the loop or qualitative analyses such as template analysis and supervised topic modelling to identify the themes and discursive patterns that characterize the social media communication of mothers who strongly endorse Superwoman Schema ideals, and to understand what they discuss online when they may be experiencing stressed but not disclosing distress directly.

3 Discussion

In this study, we explore how social media posts may surface stressors and coping strategies for a cohort of perinatal Black women situated in the southeastern United States. Across our broad cohort, participants reported moderate levels of stress and stressful life events, though rates of clinical depression and COVID-related anxiety were relatively low, possibly reflecting strong coping resources such as high self-efficacy and widespread use of religious coping. Social media use was common, but perceived stress alone was not associated with higher social media engagement across the full sample. Instead, partnered status shaped this relationship: partnered individuals generally reported lower social media use, but among them, higher stress was associated with greater use. Among partnered mothers specifically, the absence of caregiving support was linked to higher stress and greater social media use, suggesting that caregiving conditions may influence how stress relates to digital coping behaviors. Through our analysis of social media posts, we find that participants do not report experiences from their stress and mental health surveys online, but their use of storytelling reflects role strains, emotions-focused and avoidant coping, as well as dimensions of the Superwoman identity that may also act as a coping strategy.

Digital mental health has been an area of growing interest among scholars, with much work exploring how to design mental health interventions and other work exploring how online behavior itself can support identifying and supporting people in need of intervention. Importantly, past work highlights that culturally adapted digital mental health interventions have a significant positive effect on mental health outcomes and present an opportunity to advance health equity for underserved and minoritized communities [50]. Our work considers the online practices of perinatal Black women in response to stress, surfacing the ways in which storytelling is a tool for stress disclosure, and the coping strategies of this population. We observe that participants engage in avoidant coping in online contexts, diverging from past work that indicates that Black women are less likely to engage in avoidant coping behaviors [43]. This finding suggests that online contexts may have affordances that lend them to better support some kinds of coping strategies over others. Given that avoidant coping strategies are associated with poorer mental health outcomes, and that social media use has been found to have a negative impact on chronic stress outcomes for Black women [51], it is possible that engaging in such coping behaviors online may worsen participants' wellbeing. Observing that social media is the number one tool for stress coping in our studied population [39], future work should explore the relationship between online community design and stress disclosure and coping behaviors, allowing us to understand how social media might engender positive coping behaviors in this population.

Moreover, a key finding from our work is that participants’ reported stress experiences are not reflected in their online posts and the stressful events participants report across surveys are not present in their online posts. Also, participants do not directly disclose stress, but may use storytelling to highlight role strains and coping in online posts. We consider these findings given the increased popularity of social media data as a predictive tool of mental health outcomes. Many predictive tools employ proxy signals such as: affiliation signals where users exhibit behaviors that associate them with mental illnesses through following/participating in related communities and using hashtags, self-reports of diagnosis online, and external validation where expert appraisals are sought to assess online self-reports [52]. We observe that these signals often rely on public and direct disclosure of mental health challenges, a theme we find to be conspicuously absent in online interactions of our population samples. Past work has highlighted that machine learning models trained to predict mental health of Black populations perform poorly, even when they are trained exclusively on the language of this population [53]. This work, held in conjunction with our observations of how participants’ online behavior diverges from the data used to develop proxy signals, suggests that beyond differential language, online behavior patterns associated with mental health may vary culturally. Specifically, for our population, given the prevalence of coping and role strains (via storytelling) in participants’ posts compared to direct disclosures of stress or mental health, we implore future work to explore to what extent the presence of coping and storytelling around stress can be additional factors to consider in the development of prediction models for perinatal Black women.

Relatedly, the results of the sentiment-based, baseline, and zero-shot models highlight a fundamental limitation of traditional mental-health detection approaches: these models rely on explicit emotional distress language as a proxy for psychological state. In this sample of perinatal women, however, social media posts were overwhelmingly positive, neutral, or resilience-framed, consistent with survey findings showing high levels of positive religious coping, self-efficacy, and endorsement of Superwoman Schema dimensions such as strength, emotional suppression, and resistance to vulnerability. Because the linguistic surface of the posts did not contain overt markers of distress, sentiment models and general-purpose LLMs were unable to infer users’ underlying stress state, even when PSS scores indicated elevated stress. In contrast, the fine-tuned RoBERTa model—trained directly on this population’s language patterns—demonstrated substantially improved performance, suggesting that domain-specific fine-tuning is essential for detecting latent psychological states in groups whose online communication norms minimize or mask emotional disclosure. These findings underscore the need for population-specific modeling approaches when distress is not expressed explicitly in language.

Considering that perinatal Black women who highly endorse superwoman ideals may not express emotional distress directly in their posts, an important next step was to examine what they were discussing instead. Template analysis and supervised topic modeling can help identify the themes, narratives, and discursive strategies that characterize the social media communication of mothers who strongly endorse Superwoman Schema ideals. Understanding these latent thematic patterns would clarify

how stress manifests linguistically in populations that avoid explicit emotional disclosure and would provide critical insight into why fine-tuned models succeed where sentiment-based approaches fail. Such analyses would also inform the development of more culturally and contextually grounded stress-detection systems for perinatal populations.

Stress among Black perinatal women may not be directly visible in their social media posts. Instead, stress and coping are often expressed indirectly through storytelling, role strain narratives, and culturally grounded identities such as the Superwoman schema, which can mask distress in digital spaces. As a result, common mental health detection approaches that rely on explicit emotional language may overlook stress in this population. Designing equitable digital mental health tools will require culturally informed models that account for indirect expressions of stress and the social contexts shaping how people present themselves online.

4 Methods

4.1 Participant Recruitment

Minoritized populations such as Black women are often underrepresented in research [54, 55], a trend partially explained by the failure of research to fully recruit and retain these populations’ participation in research studies [56]. Much research has documented the variety of challenges faced in engaging these populations in studies, with barriers such as mistrust of researchers, confidentiality worries, lack of availability to participate in studies, stigma, negative historical attributions to research and fear of harm from research shaping Black and other minoritized populations’ attitudes towards participation in research studies [57]. Given these factors we employed a non-probabilistic sampling approach for our study, which included recruiting via advertising and through collaborations with community organizations. From May 2022 to November 2023, we advertised the study through various channels that included local radio, flyers, and social media. Recognizing the importance of working with prenatal providers and community organizations to engage pregnant women [58], we also collaborated with local hospitals, community groups, and the offices for the United States Special Supplemental Nutrition Program for Women, Infants, and Children program to advertise our study and increase our reach to potential participants.

4.2 Data Collection

We conducted two phases of data collection. In Phase 1, $n=114$ participants completed an initial online survey that assessed participants’ stress and mental health experiences and use of social media. After completing this survey, participants were invited to share their Facebook posts from the past three years and complete a second survey that assessed their adherence to the Superwoman schema[10] and social media use patterns for mental health support during the perinatal period (Phase 2). 18 women submitted data at this stage. 1 participant was excluded due to having only 1 social media post, resulting in 17 total participants for this stage of data collection. Our study procedures were reviewed and approved by a university IRB board. Participants

were compensated with \$25 via a digital VISA or Amazon gift card after each study phase.

4.2.1 Phase 1: Stress Experiences and Coping-Related Measures

- **Stress Experience Survey Measures:** Participants completed survey measures that assessed stressful life experiences, perceived stress [59], race-related stress [60], postpartum depression [61], trauma [62] and anxiety due to COVID-19 [63]. This data was collected to build an understanding of participants' general experiences of stress through validated measures, and to contextualize their social media behaviors. Table A1 in Appendix A describes the survey measures used.
- **Coping Behaviors and Coping Beliefs Measures:** Participants completed survey measures that assessed religious coping behaviors [64] and general level of self-efficacy [65]. This data was collected to develop a broad understanding of how participants respond to stressful events, specifically culturally-aligned coping strategies. In addition, the measures provided insight into participants' general belief in their ability to manage challenges and effectively cope with difficult situations.
- **Social Media Use Pattern Measures:** Participants completed survey measures assessing their frequency of social media use both prior to the COVID-19 pandemic and during the two weeks immediately before completing the survey. These data were collected to characterize participants' general patterns of social media engagement across the pre- and post-pandemic periods of the perinatal experience.

4.2.2 Phase 2: Online Disclosures of Stress And Superwoman Attributes

- **Facebook Posts:** Participants uploaded a zip file of their Facebook posts from the past three years to a secure drive. The data included their posts, the date and time of posting, groups they belonged to, and posts within those groups, as well as their 'like' activity. For this study, we extracted only the date, time, and text of posts on their main timeline. This data allowed us to observe participants' social media behaviors related to stress during the perinatal period and compare their posts with reported stress experiences from surveys. In total, we collected **29,440 posts** across all participants. Informed consent was obtained for collecting and using this data, which was only accessible to the researchers involved in the study to protect participants' privacy.

4.2.3 Phase 3: Level of Adoption of the Superwoman Identity

- **Superwoman Schema Survey:** Participants completed survey measures assessing their level of adoption of the Superwoman schema, as well as how it impacts their online behavior. Given past work demonstrating this phenomenon's influence on stress and mental health [12, 13, 66], we administered this survey to explore possible connections between participants' adoption of a Superwoman identity and expressions of stress online.

4.3 Data Analysis

To understand the relationship between participants' online behavior and stress experiences, we adopted a mixed methods approach in our analysis. We conducted four forms of analysis, outlined below:

- **Statistical analysis of survey measures on stress, coping and social media use (n = 114):** All statistical analyses were conducted using Python version 3.9. Descriptive statistics were reported as means with standard deviations (mean $\pm$ SD) for continuous variables and counts with percentages [n (%)] for categorical variables. Between-group differences in perceived stress and social media use were examined using independent samples t -tests for continuous variables and chi-square tests for categorical variables. Two-sided $p < 0.01$ was considered statistically significant. Associations among perceived stress, social media use, and caregiving support were evaluated using Pearson correlation coefficients.

To examine whether perceived stress predicted higher social media use, a logistic regression model was constructed with high social media use (defined as >3 hours/day) as the binary outcome. The model included demographic covariates and interaction terms, and model fit was assessed using likelihood ratio tests and McFadden's pseudo- R^2 . Regression coefficients (B), standard errors (SE), and corresponding p -values were reported.

- **Topic modeling of social media data (n = 29,440):** To explore our dataset and gain an understanding of general themes in participants' posts, we applied topic modeling, a natural language processing technique that identifies patterns in text by analyzing word distributions. Specifically, we used the BERTopic algorithm, which generates contextually rich and interpretable topics, and has proven effectiveness in analyzing short, unstructured text [67]. For our analysis, we cleaned our Facebook dataset by removing punctuation, emoticons, and hyperlinks and converted all text to lowercase. We then applied BERTopic modeling algorithm [68] using Python. We used the BERTopic model from the BERTopic library [68], generating a table of topics, word counts, and associated quotes. We then created word clouds for each topic using the WordCloud library. The first author and labeled topics based on their associated quotes and examined associated quotes for references to stress.
- **Template analysis of social media data (n = 29,440):** While topic modeling surfaced themes in participants' data, it did not provide a qualitative understanding of the content within those themes, such as the specific attitudes expressed in the posts or how topics like 'family' were linked to experiences of stress. Consequently, the first, second, and third authors conducted *template analysis*: a qualitative method for organizing and analyzing textual data, which involves creating an initial template of themes based on the data, then iteratively refining it as new insights emerge to gain a deeper understanding of participants' posts.[69]. To develop our initial coding template (a structured set codes used as a starting framework for analyzing qualitative data), we pulled from three sources: 1) literature on stressors faced by perinatal Black women, 2) stress-coping strategies as outlined by Carver [42], and 3) dimensions of the Superwoman Schema as described by Giscombe-Woods [10]. The second author tested this initial set of codes on publicly available posts from

Black mothers on their motherhood and pregnancy experiences. Our initial template was modified to include new themes that emerged in the test dataset, resulting in a final template that better aligned with our data and research objectives.

After finalizing our initial template, the first and third author independently applied this template to a random subset of posts ($n = 3874$) across all participants to examine the extent to which stressors, coping strategies, and Superwoman Schema dimensions were present in participants’ posts, allowing us to map concepts from literature onto participants’ online posts. Our coding process was iterative, and we continually refined our final template to include themes in participants’ data that were not present in our initial coding template, such as support-seeking behaviors and emotional expressions. Additionally, we compared participants’ posts to their survey responses to identify to what extent stress or mental health experiences reported in surveys were present in online posts. For example, we searched for reports of financial stress in posts of participants who disclosed challenges with paying bills in the Stressful Life Events (SLE) survey, and disclosures of depression or trauma for those that scored above benchmark values for the Edinburgh Postnatal Depression Scale (EDPS) and the PTSD scale, respectively. Weekly meetings between the first and second author facilitated the refinement of our codes, ensuring they accurately reflected the data and discrepancies between the researchers were resolved through thorough discussion and reflection on the relevant codes [70] (e.g., revisiting definitions of Superwoman schema dimensions). Our final codebook is included in the Appendix (B).

- **Machine learning prediction of stress outcomes based on social media data ($n = 29,440$):** We evaluated whether users’ underlying stress state could be inferred from their social media posts using a series of machine learning and large language model approaches. Ground-truth labels were derived from the Perceived Stress Scale (PSS), which was dichotomized at the sample mean to classify participants into a higher-stress and lower-stress group. Because participants’ posts were predominantly positive or resilience-framed, the objective of the models was not to detect explicit distress language but to determine whether latent linguistic patterns were predictive of users’ stress state. We first tested sentiment-based transformer models (DistilBERT and RoBERTa) to assess whether general sentiment or emotional tone could differentiate stress groups. We then trained baseline machine learning models—logistic regression and random forest—using simple linguistic features extracted from posts (e.g., word count, average word length). As an additional comparison, we evaluated zero-shot and few-shot prompting using large language models (Gemini 2.5 Flash and ChatGPT) to determine whether general-purpose LLMs could infer stress state without task-specific training. Model performance for all approaches was assessed using accuracy, area under the receiver operating characteristic curve (AUC), sensitivity, and F_1 score.

Given the limited performance of these general models, we fine-tuned RoBERTa on the study dataset to develop a domain-specific classifier optimized for perinatal social media language. Posts were tokenized using the RoBERTa tokenizer, and the model was trained using a standard 70%–30% train–test split with five-fold cross-validation in the training set. Fine-tuning was performed using cross-entropy loss

with class balancing to account for equal group sizes. Performance was evaluated on the held-out test set using accuracy, F_1 score, and confusion matrices to assess classification balance across stress groups. Together, these machine learning analyses allowed us to compare sentiment-based models, baseline classifiers, zero-shot LLMs, and a domain-specific fine-tuned transformer to determine which approaches were capable of inferring stress in a population that does not disclose emotional distress directly in their social media posts.

4.4 Ethics

While social media data collected in our study is publicly available in some cases, for the sake of preventing identification of participants, we report our findings using pseudonyms to represent participants, and by paraphrasing their posts. Further, we remove all identifiable information in our report such as location and names. We received informed consent from participants to collect and use their survey and social media data at the beginning of the study, where we also assured them their raw data would only be shared with other researchers and would be stored in a secure drive. Further, participants were informed that their shared data would be de-identified to prevent their identities from being discovered via their data. Given the sensitivity of this study, we secured participants' data in an encrypted drive, only accessible to researchers involved in the study. All participants provided informed consent before participating in our study, and our data management and collection process was approved by our institution's IRB board.

Supplementary information.

Declarations

- Funding: Natalie Hernandez, National Institutes of Health (NIH) National Center for Advancing Clinical and Translational Sciences (NCATS) Office of the Director Maternal Health Task Force
- Conflict of interest: I declare that the authors have no competing interests as defined by Nature Portfolio, or other interests that might be perceived to influence the results and/or discussion reported in this paper.
- Ethics approval and consent to participate: This study was approved by the Institutional Review Board at Morehouse School of Medicine (Protocol #1800529-32). Participants provided informed consent for the use of their submitted social media data for research purposes.
- Consent for publication: Participants provided informed consent for the publication of anonymized data derived from their submitted social media posts.
- Data availability : The data that support the findings of this study are not publicly available due to the sensitive nature of the content and the conditions of participant consent. Participants did not consent to their data being shared in a public repository. Given that the dataset includes potentially identifiable social media posts and self-reported mental health information, additional restrictions apply to protect participant privacy. De-identified data may be made available from the corresponding author upon reasonable request and subject to institutional review and approval.

- Materials availability: Not Applicable
- Code availability: The underlying code for this study is available to qualified researchers on reasonable request from the corresponding author.
- Author contribution: D.S. and V.O. wrote the protocol. D.S. and R.T. collected the data. D.S., V.O., and R.T. conducted the analysis. O.F., K.M., R.T., and P.A. facilitated recruitment of participants for the study. D.S. wrote the first draft of the paper. V.O. contributed revisions to the computational analysis as well as the manuscript's framing and interpretation. A.P., S.C., D.S., V.O., M.I., N.H., and R.C. read and approved the final manuscript.

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Appendix A A1: Survey Measures Used

Appendix B A2: Codebook

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Table A1 Survey Measures. *indicates a non-standard benchmark based on past literature

Measure	Number of items	Summary	Scale Range	Benchmarks
Stressful Life Events Survey (SLE)	12	Selecting from a list of stressful life events participants may have experienced, e.g., arguing with a spouse	0-12	*We use >2 as a benchmark as 3 or more stressful life events is correlated with a 3.5 times higher rate of depression [96]
Perceived Stress Scale (PSS) [22]	10	Measure individuals' feelings and thoughts over 30 days e.g., "In the last month, how often have you felt that you were on top of things?"	0-40	*We use the population mean for women (mean = 13.6, s.d. = 6.6) as a benchmark [74]
Index of Race-Related Stress-Brief (IRRS) [106]	22	Measures individuals' stress experiences due to their racial or ethnic background e.g., "To what extent have you experienced: You were refused an apartment or other housing; you suspect it was because you are Black"	0-88	NA
PTSD Checklist for DSM 5 (PTSD) [36]	20	Assesses the presence and severity of post-traumatic stress syndrome (PTSD) symptoms based on DSM-5 criteria	0-33	31-33 signifies PTSD
Edinburgh Postnatal Depression Scale (EPDS) [19]	10	Assesses presence of postnatal depression in women based on DSM-5 criteria	0-30	>12/13 signifies depression
Coronavirus Anxiety Scale (CAS) [62]	5	Assesses the presence and frequency of anxiety symptoms related to the COVID-19 pandemic. e.g., How often have you experienced: "I had trouble falling or staying asleep because I was thinking about the COVID-19"	0-20	>8 signifies COVID-19 related anxiety
Religious Coping (SWS) [107]	35	Assesses the extent to which individuals endorse or internalise the Superwoman identity. e.g., "To what extent is this true for you: 'I feel guilty when I take time for myself'?"	0-105	High: 71-105, Moderate: 37-70, Low: 0-36
General Efficacy Scale (SWS) [107]	35	Assesses the extent to which individuals endorse or internalise the Superwoman identity. e.g., "To what extent is this true for you: 'I feel guilty when I take time for myself'?"	0-105	High: 71-105, Moderate: 37-70, Low: 0-36
Superwoman Schema Scale (SWS) [107]	35	Assesses the extent to which individuals endorse or internalise the Superwoman identity. e.g., "To what extent is this true for you: 'I feel guilty when I take time for myself'?"	0-105	High: 71-105, Moderate: 37-70, Low: 0-36

Table B2 Codebook

Source	Codes	Meaning	Examples
Open Cod- ing Themes	Storytelling	Describing a personal event or experience in detail	i was at work the other day and i was watching tyra, because y'all know she get antsy. tell me why some man came in to tell me i was being unprofessional?? the nerve?
	Updates	Sharing daily updates, describing small things that occur in daily life including events, milestones, and self-descriptions	made jambalaya with the folks today! #sundayfunday
	Expressing Emotions	Sharing feelings, use of emotion words, posts that convey feelings, venting	i love this man so much, he truly makes my day everyday
	Family	Sharing interactions with family members or friends	my uncle so funny, im so glad to have him around to help with jayla
	Challenges	Describing minor and major challenges or sources of stress	im so tired of commuting for 3 hours everyday to this school, i be so stressed when i get home im going to miss hector so much, those of you who know me know how much he meant to me, so sad to lose a family dog
	Social Support	Seeking or providing support through online posts	tyrone just had his first steps today! my baby boy is a genius fr
	Children	Describing children's experiences, pregnancy, or motherhood	
Stress Dis- closures from Survey	Self-reports	Disclosing mental health challenges or diagnoses	i've been suffering with PTSD over the past year. it is truly no joke
	Affiliation to Mental Health Resources	References to mental health resources reported in survey responses	i opened my mood app today and boy the past week has been rough!
	Survey Stressor	Mentioning stressors present in survey responses	i dunno how imma pay these bills this month ngl

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Table B3 Codebook continued

Source	Codes	Meaning	Examples
Literature- common Stressors Amongst Black Women	Poor Neighbourhoods	Challenges due to poor infrastructure in home location	tired of living in this damn neighbourhood, cant even walk in the park with my kids anymore
	Racism	Experiences with racism during pregnancy or otherwise	right!! i had to tell the docs 5 times to give me pain medication when i was giving birth to Jayla before they listened im so mad at my brother for forgetting to pick my groceries, and my husband wont even agree with me
	Interpersonal challenges	Challenges in interpersonal relationships such as family	some days you gotta choose between feeding your family and turning on the heat
	Food Insecurity	Challenges with access to quality food	i gotta go to work, drop my girl off, then come back and cook for us... no days off
	Work-Family Balance	Challenges balancing work and family	my electric bill came in and boyyyy lemme cancel my cable rnrn i cant afford this fr
	Financial Stress	Challenges affording bills and necessities	
Literature- Types of Coping Strategies	Problem-focused	Efforts to address challenges or seek advice	does anyone have tips on managing school pickups for kids? i need to fix this, its been stressing me out
	Emotion-focused	Religion, emotional reframing, or seeking emotional support	i've been through a lot this year, but i know it was for my growth. God got me whatever it is
	Avoidant	Venting, distraction, or giving up temporarily	im exhausted, i cant do this anymore fr, im actually just going to watch tv and forget this ever happened
Superwoman Schema	Image of Strength	Self-describing as strong or persisting through challenges	had to pick jayla up and then run to my presentation before coming home to cook dinner and complete my work project. its a lot, but i stay strong for my lil girl
	Suppression of Emotions	Reluctance to express emotions	honestly, this has been the worst week of my life but i will not cry or complain. it will be fine
	Resistance to Being Vulnerable	Reluctance to share challenges with others	i dont really like telling people my problems fr it just makes me feel so weak
	Intense Motivation to Succeed	Desire to achieve milestones despite challenges	i got 2hrs to finish this client project, but its the biggest one i got, and i know imma kill it no matter what. i gotta get that money for jeromes private school whatever happens
	Obligation to Help Others	Offering resources or emotional support to others	i'm giving away care packages this holiday! i know its been a tough year for some and just want to spread some joy. hmu if you'd like one

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