

Association of the Strong Black Woman to Maternal Mental Health and Perinatal Outcomes: A Literature Synthesis

Abstract

Black mothers are at a higher risk of developing mental health problems during pregnancy, leading to extensive repercussions for maternal and fetal health. While racism is a significant contributor to these risks, the effects of internalized racism expressed through the Strong Black Woman (SBW) cultural script are understudied. A literature review was conducted using the CINAHL database. Qualitative and quantitative studies were included if they pertained to Black women, were written in English, and were published between January 1st, 2012, and December 30th, 2022. Thirty-two papers were included in the review and were determined to be of generally high methodological rigor. The main findings were that Black women who perceived having experienced racial microaggression and who endorsed the SBW schema characteristics were at an increased risk for psychological distress. As perinatal anxiety and depression are significant predictors of low birthweight and preterm infants, high endorsement of the SBW is posited to significantly contribute to disparities in maternal mental and perinatal health outcomes.

Keywords

Superwoman • Strong black woman • Maternal mental health • Perinatal health • Birth outcomes

Introduction

Racism, operating at interpersonal, systemic, and structural levels, emerges as a significant factor influencing maternal psychological and mental health [1]. Research demonstrates racism adversely impacts birth outcomes by contributing to stress, anxiety, and depression during pregnancy [2]. According to the Centers for Disease Control

Review Article

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Received: 01 May 2024; **Accepted:** 12 June 2024; **Published:** 24 June 2024

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(CDC), Black women report the highest stress levels during pregnancy (77%) relative to White (67%), Hispanic (74%), and Asian/Pacific Islander (57%) women [3]. The national averages of anxiety (24%) and depression (28%) with Black women reporting higher rates of depression and anxiety during pregnancy relative to other racial and ethnic groups [4,5]. Studies reveal that stress, anxiety, and depressive symptoms during pregnancy not only significantly and independently predict low birth weight and preterm infants, but they also significantly increase the risk for infant mortality and morbidities affecting cognitive and physical development [6-8]. While the development of perinatal stress, anxiety, and depression is associated with multiple risk factors, certain race-specific correlates appear to be important for its development in Black pregnant women [9,10].

Despite efforts to mitigate the effects of racism, racial disparities continue to persist, raising the issue of racism

operating at the individual level. Exposure to racism is known to elicit an individual-level response known as appropriated racism [11], which considers the interplay between the individual and a racist sociocultural context. Racism gets ‘under the skin’ through the appropriation of racist stereotypes among Black women, which is both a response to racism and a racist stressor [4]. As a survival mechanism during American chattel slavery, the SBW schema imposes historical burdens contemporarily among the many Black women [12]. The SBW schema includes obligations such as showing strength throughout adversity, suppressing emotions to meet strength expectations, resisting vulnerability to neediness or weakness, intense motivation to succeed with scant resources, and caring for others at the expense of self-care [13-15]. These obligations are associated with poor emotional, psychological, mental, and physical health, disengagement from reproductive healthcare systems, delayed healthcare, and experiences of racial bias from healthcare providers, which impact birth outcomes [14-16].

Despite the significance of the SBW schema in influencing maternal mental and perinatal health, research in this area remains relatively limited. This literature synthesis assesses the quality of the Cumulative Index to Nursing and Allied Health Literature (CINAHL) peer-reviewed publications in this area and synthesizes the findings on the relationship between the SBW schema maternal mental and perinatal health outcomes among Black women, providing insights for interventions in this context.

Methods

Literature synthesis strategy

According to Coster et al (2017), a literature synthesis is a streamlined version of the systematic review process, where certain steps are either simplified or excluded to deliver information swiftly and involve restrictions based on publication date or use of databases [17]. As a rapid review and alternative to conventional systematic reviews, a literature synthesis is efficient in offering summarized evidence for timely health service delivery decisions and accessibility for policymakers to support decision-making processes. Therefore, using relevant guidelines from the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) [18], a systematic search of

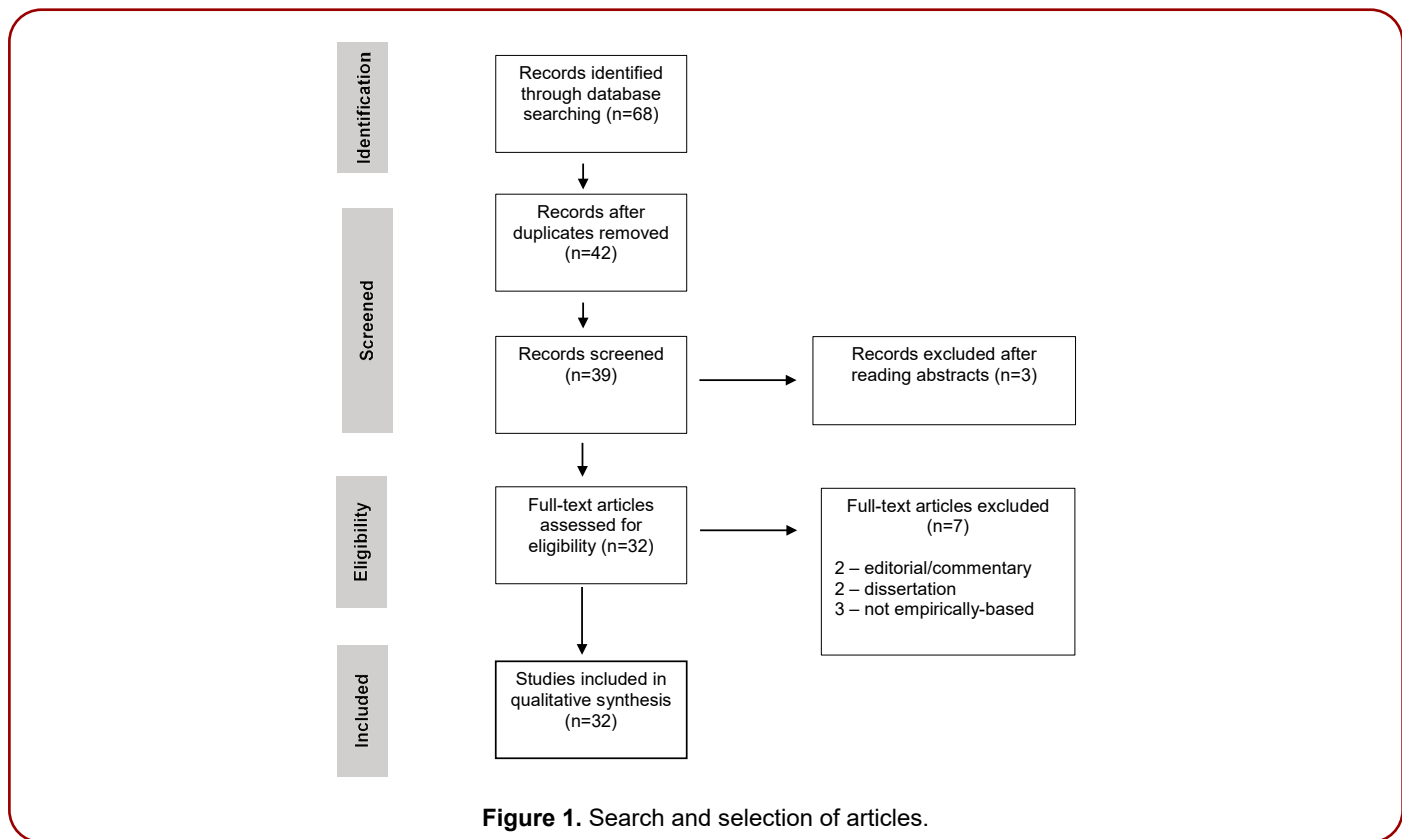
peer-reviewed articles addressing maternal mental health and perinatal health outcomes concerning the Strong Black women/Superwoman schema was conducted using the CINAHL database.

Systematic literature search process

To be included for review, studies had to (a) address the Strong Black Woman/Superwoman as the key issue; (b) target Black women or include Black women as participants; (c) be a published peer-reviewed journal article in English, between 2012 and 2022; (d) examine factors of psychological stress, mental health, and perinatal health; and (e) present empirical findings using qualitative, quantitative, and/or mixed methods. Articles were excluded if they did not meet the eligibility criteria. Primary search terms included the ‘Strong Black woman’ or ‘Superwoman’, which were searched separately and in conjunction with secondary search terms ‘stress’, ‘anxiety’, ‘depression’, and ‘mental health’. Potential articles’ titles and abstracts were then screened to ensure these articles were relevant to the study. Abstracts that met the criteria were selected for full-text review. For this review, the U.S. Census’s definition of Black or African American was used (i.e., a person having origins in any of the Black racial groups of Africa). The date of the last search was in October 2022. (Figure 1) illustrates the systematic process of the literature search.

Quality assessment methods

A Methodological Quality Ratings Scale (MQRS), widely used and validated in systematic health literature reviews, was modified to evaluate the included quantitative and mixed methods studies [19-21]. Characteristics and methodological quality of each study were ascertained using the following criteria: study design, definition of Strong Black Woman/Superwoman schema, ethnicity, participant description, data analysis, data reliability testing, data validity testing, and theoretical framework (Table 1). Based on these criteria, studies were given a score between 4 and 16, with a higher score indicating greater methodological rigor and quality. Scores were classified as low (4-7), medium (8-11), or high (12-16) [6]. The Consolidated Criteria for reporting qualitative research (COREQ) is a 32-item checklist used to assess the reporting quality of studies utilizing focus groups and



Methodological Criteria	Description	Score
Study design	Experimental study	4
	Case-control study	3
	Longitudinal study	2
	Mixed methods	2
	Cross-sectional study	1
Definition of strong black	Defined	1
	Not Defined	0
Woman/superwoman schema ethnicity	Reported by sub-group	2
	Reported as black	1
Participant description	Women only	2
	Women and men	1
Data analysis	More advanced statistics	4
	Regression/analysis of covariance	3
	Bivariate statistics	2
	Descriptive only	1
Data reliability testing	Discussed reliability	1
	Did not discuss reliability	0
Data validity testing	Discussed validity	1
	Did not discuss validity	0
Theoretical Framework	Reported	1
	Not reported	0

Table 1. Criteria for assessing the methodological quality of quantitative and mixed methods studies.

Methodological Criteria	Description	N of studies	Percentage
Study design	Experimental study	1	5.0
	Case-control study	0	0.0
	Longitudinal study	0	0.0
	Mixed methods	2	10.0
	Cross-sectional study	17	85.0
Definition of strong black	Defined	17	85.0
	Not Defined	3	15.0
Woman/superwoman schema ethnicity	Reported by sub-group	8	40.0
	Reported as black	12	60.0
Participant description	Women only	19	95.0
	Women and men	1	5.0
Data analysis	More advanced statistics	12	60.0
	Regression/analysis of covariance	8	40.0
	Bivariate statistics	0	0.0
	Descriptive only	0	0.0
Data reliability testing	Discussed reliability	17	85.0
	Did not discuss reliability	3	15.0
Data validity testing	Discussed validity	17	85.0
	Did not discuss validity	3	15.0
Theoretical Framework	Reported	11	55.0
	Not reported	9	45.0

Table 2. Distribution of methodological quality characteristics across reviewed studies.

interviews [21,22]. Using COREQ, the characteristics and methodological quality of qualitative and mixed-method studies were examined using items classified into three main domains: research team and reflexivity, study design, and analysis and findings (Table 3) [21,22]. Based on these items, studies were given a score between 0 and 32, with a higher score indicating greater methodological rigor and quality. Scores were classified as low (0–11), medium (12–23), or high (24–32)

Results and Discussion

The initial search yielded 68 article results, of which 26 articles were excluded as duplicates. A second screening of the remaining 42 articles' titles and abstracts excluded three articles deemed irrelevant to the study. The remaining 39 articles were assessed for eligibility. Seven were found

to be ineligible, which produced 32 studies that fit the eligibility criteria in the final literature synthesis (Figure. 1).

Methodological rigor

The review encompassed a comprehensive analysis of thirty-two papers which underwent an in-depth assessment in terms of their methodological quality. Seventeen studies (53.1%) used quantitative methods and were evaluated using MQRS. Twelve studies (37.5%) used qualitative methods and were evaluated using COREQ. Three studies (9.4%) used mixed methods and were evaluated using MQRS and COREQ (analysis was performed twice). These papers were systematically evaluated and were found to generally maintain a high level of methodological rigor, ensuring the integrity of the results they presented.

Quantitative and mixed methods studies varied in their

	Abrams et., al 2014	Black & Woods-Giscombe, 2012	Etowa et., al 2017	Graham & Clarke, 2021	Hall et., al 2021	Jones et., al 2019	Lewis & Neville, 2015	Nelson et., al 2020	Nelson et., al 2016	Sheffield-Abdullah & Woods-Giscombe, 2021	Wade et., al 2022	Watson & Hunter 2016	West et., al 2016	Woods-Giscombe et., al 2019	Woods-Giscombe et., al 2016
Domain 1. Research Team and Reflexivity															
1. Interviewer/facilitator	1	1	1	1	1	1	0	1	1	1	0	1	1	0	1
2. Credentials	1	1	0	1	1	1	0	1	0	0	0	0	1	1	1
3. Occupation	1	1	0	1	1	1	0	1	1	1	1	0	1	0	1
4. Gender	1	1	0	1	1	0	0	1	1	1	0	1	1	0	1
5. Experience and training	0	0	0	1	0	0	0	1	0	0	0	0	1	0	1
6. Relationship established	0	0	0	1	0	0	0	0	0	1	1	0	0	1	0
7. Participant knowledge of the interviewer	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
8. Interviewer characteristics	0	0	0	1	0	0	0	1	0	0	1	0	1	0	0
Domain 2. Study Design															
9. Methodological orientation and theory	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0
10. Sampling	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
11. Method of approach	1	0	0	1	1	1	1	1	1	1	1	0	1	1	1
12. Sample size	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
13. Non-participation	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
14. Setting of data collection	1	0	0	0	1	1	0	0	1	1	0	0	0	0	1
15. Presence of non-participants	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1
16. Description of sample	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
17. Interview guide	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18. Repeat interviews	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0
19. Audio/visual recording	1	1	1	1	1	1	0	1	1	1	1	1	0	0	1
20. Field notes	1	0	0	0	0	1	0	0	0	0	1	0	0	0	1
21. Duration	1	0	0	1	1	1	0	1	1	1	1	0	0	1	0
22. Data saturation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23. Transcripts returned	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Domain 3. Analysis and Findings															
24. Number of data coders	1	0	0	1	1	1	0	1	1	1	1	0	1	0	1
25. Description of the coding tree	1	0	0	1	1	1	0	1	1	1	1	1	1	0	1
26. Derivation of themes	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1
27. Software	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0
28. Participant checking	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0

29. Quotations presented	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1
30. Data and findings consistent	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
31. Clarity of major themes	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
32. Clarity of minor themes	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1
Total Number of Items Present	22	15	12	22	20	23	5	22	20	22	19	14	19	14	22

Table 3. Methodological quality assessment of qualitative studies.

methodological rigor, with MQRS scores ranging from 8 to 16 (Mean = 10.36). Two (10.0%) studies were classified as low quality 7 and were removed from the literature synthesis, seven (35.0%) as medium quality, and eleven (55.0%) studies as high quality. Eighteen studies were included in the final synthesis. One quantitative study had an MQRS of 16. (Table 2) outlines the general characteristics of reviewed quantitative and mixed methods studies. Among the reviewed quantitative and mixed methods studies, 17 (85.0%) were cross-sectional, 2 (10.0%) were mixed methods, and 1 (5.0%) was experimental. Most studies (85.0%) defined the Strong Black Woman or Superwoman schema and focused only on women (95.0%). Eight (40.0%) studies reported results by subgroup (e.g., African American, Caribbean, etc.), while 12 (60.0%) studies reported results by broader ethnic group (i.e., Black). In terms of data analysis, all studies used higher-level data analysis, with eight (40.0%) studies using regression and covariance analysis and twelve (60.0%) studies using more advanced statistics. Most studies (85.0%) also discussed reliability testing and validity testing.

Qualitative and mixed methods studies showed less variance in their methodological rigor, with COREQ scores ranging from 5 to 23 (Mean = 18.1). One (6.67%) study was classified as low quality and was removed from this synthesis, while the remaining fourteen (93.3%) studies were classified as medium quality (14 studies in final synthesis). No studies met the threshold for high quality (COREQ ³ 24). Table 3 outlines specific standards that were met by each study, dividing them into the domains of research terms and reflexivity, study design, and analysis and findings. With the removal of the outlying study (COREQ = 5), the remaining studies had COREQ scores ranging from 12 to 23 (Mean = 19). Following the analysis of methodological rigor, the findings of each study were reviewed for correlations among the Strong Black Woman/ Superwoman schema, maternal psychological, mental,

and perinatal health. (Table 4) summarizes these findings, which were subsequently 8 organized into a conceptual map (Figure 2) that encapsulates how endorsement of the SBW directly impacts the physical and mental health of pregnant Black women while also inadvertently causing detriment to the next generation. At the root of all these issues are the contributions of the SBW to stress, anxiety, and depression.

SBW schema and stress

The SBW schema is correlated with stress better understood in the context of gendered racism - a significant and persistent stressor for Black women, with health implications ranging from sleep quality to cellular aging. [14, 23–25] It is proposed that SBW endorsement alleviates this stress by fostering a sense of self-worth and pride in being a Black woman, even in the face of intersectional oppression [26-31]. However, the SBW schema also imposes unrealistic expectations with deleterious effects on emotions, stress responses, and behaviors [28,30,32-37].

Despite serving as a source of strength and resilience, endorsement of the SBW can lead to emotional dysregulation and maladaptive behaviors which contribute to psychological distress and exacerbate the risk of adverse health outcomes including a weakened immune system, increased cardiovascular risk factors, and even a shortened life expectancy [28,33,38]. A reluctance to seek help or engage in self-care further compounds the health risks associated with the SBW schema, as evidenced by studies linking chronic stressors like gender and race-related stress to coping-motivated eating behaviors and a reluctance to address health concerns such as breast cancer [13,39]. In tandem with extensive costs to physical health, the SBW has also been implicated in the development of numerous psychological conditions, including anxiety and depression [40,41].

Lead author, year	Sample Description	Findings related to Black maternal mental and perinatal health
1. Abrams et., al 2014	44 Black women from the Mid-Atlantic region of the United States, ranging in age from 18 to 91 and from diverse religious and educational backgrounds.	Four prominent themes perceived as defining the SBW Schema: embodies and displays multiple forms of strength, possesses self/ethnic pride despite intersectional oppression embraces being every woman anchored by religion/spirituality
2. Black and Woods-Giscombe, 2012	A socio- demographically diverse group of 48 African American women aged 19–72 years, living in the Southeastern part of the United States.	Race-related and gender-related stressors not only incite strength behaviors, but also manifest in the form of extraordinary caregiving, emotional suppression, and delayed self-care. The implication of this includes low prioritization of breast care, limited time for scheduling and attending screening appointments, and a lack or delay in acknowledging breast health symptoms.
3. Castelin &White, 2022	212 college-aged, Black women ranging in age from 18 to 25 years old.	Higher levels of SBW endorsement were associated with higher levels of psychological distress (including depression, anxiety, and stress) and higher levels of suicidal behaviors.
4. Dale &Safren, 2019	100 Black women living with HIV in a large urban metropolitan area in the Southeastern United States	Gendered racial microaggression predict trauma symptoms far more than race- and HIV-related discrimination does.
5. Donovan &West, 2015	92 Black female college students at a diverse, urban, commuter, New England university.	Both moderate and high levels of SBW endorsement increased the relationship between stress and depressive symptoms, while low levels of SBW endorsement did not.
6. Erving et., al 2019	1,176 African American adults aged 18 years or older residing in households in the coterminous United States	Evidence supporting the black-white mental health epidemiologic paradox across lifetime and past-year disorders were found for both women and men.
7. Etowa et., al 2017	50 African-heritage women aged 40–65 years in Eastern Canada	African Nova Scotian women were conflicted by the ideal of the SBW within their communities. While the SBW role was strongly endorsed as a source of cultural pride, it was also acknowledged to take a toll on their health and well-being.
8. Exum et., al 2022	208 Black women aged 18 15 years or older in the United States	Stress influenced by sociocultural factors was found to play a significant role in binge eating among Black women
16 Graham &Clark, 2021	18 African Caribbean women living in the 17 UK	Participants expressed common ideologies of strength as a mechanism to cope with racism and the minimization of feelings in the presence of others as a strategy to cope with distress
18 Graham et., al 2022	100 Black female students, faculty, and staff members at five universities and colleges in the eastern region of the United States	A moderately positive relationship was found between SBW endorsement and stress, no significant difference was found between SBW endorsement and any of the culture-specific forms of coping found within the Africultural Coping Styles Inventory. Although adherence to the SBW image is correlated with increased stress, women who endorse this image may handle their stress using multiple forms of culture-specific coping
19 Green 2019	Black women from a smaller southeastern community organization in a low income, urban area	Depressed African American women who utilized coping strategies characteristic of the SBW, particularly affect regulation, demonstrated an increased risk for suicidal ideation.
20 Hall et., al 2021	62 Black women from southeast Tennessee	Despite some of the harmful effects of the SBW phenomenon, identifying as a SBW was a source of racial and cultural pride for women. Participants also discussed their positions of privilege when comparing themselves to their parents and grandparents.
21 Jones et., al 2021	240 Black women between the ages of 18 and 48 years old, varying in education level	Among four coping styles - social support, disengagement, spirituality, and problem-oriented/engagement - only disengagement coping was found to partially mediate the association between SBW endorsement and depressive symptomatology.

Lead author, year	Sample Description	Findings related to Black maternal mental and perinatal health
22 Jones et., al 2019	Midlife Black women, aged 40 through 64, from the greater Cincinnati area	Four primary sources of stress – workplace, parenting, finances, and social media – were identified. In addition, two sources of stress relating to the SBW role – gendered racism and discrimination and life imbalance – were identified.
23 Knighton et., al 2022	243 African American women aged 19–72 years old	Black women who perceive having experienced racial microaggression and who endorse an obligation to show strength/ suppress emotions, a defining characteristic of the Superwoman schema, have an increased risk for psychological distress.
24 Leath et., al 2022	447 Black/African American women aged 20–35 years old	More adverse childhood experiences and increased endorsement of the Superwoman Schema were both associated with higher stress, anxiety, and depressive symptomology.
25 Lewis &Neville, 2015	Twelve diverse adult Black women representing a range of social positions, including unemployed women, working-class women, and professional women	The Gendered Racial Microaggressions Scale was associated with other measures of sexist events (the Schedule of Sexist Events), racial and ethnic microaggressions (the Racial and Ethnic Microaggressions Scale), and mental health outcomes, supporting the construct validity of this scale.
26 Liao et., al 2020	222 African Americans/Afro-Caribbean/Black American women at least 18 years of age	SBW endorsement was found to be significantly associated with depression and anxiety symptoms, as well as loneliness.
27 McLaurin-Jones et., al 2021	110 undergraduate women (18–24 years) attending a Historically Black College and University (HBCU) who self-identified as Black	While SBW endorsement was independently associated with insomnia and sleep quality, in the presence of stress, it was not associated with either.
28 Nelson et., al 2016	Thirty Black American women, diverse in their ethnic identification and aged between 18 to 66	Five main themes were abstracted from participant responses as describing the SBW: independence, taking care of family and others, hardworking and high achieving, overcoming adversity, and emotionally contained.
29 Nelson et., al 2020	Thirty Black American women, diverse in their ethnic identification and aged between 18 to 66	Excessive adherence to certain characteristics of the SBW role - masking or ignoring pain to avoid the appearance of weakness, inability to ask for help, and lack of self-care – make it difficult for Black women to acknowledge experiences of depression and seek treatment for it.
30 Shahid et., al 2018	129 Black women enrolled in 25 selective to highly selective predominately White colleges and universities in the Mid-Atlantic and Northeast region of the United States	A significant positive association was found between racial tension experienced on campus and stress. Participants who used more culture-specific coping reported more stress, but as racial tensions increased, participants who used less culture-specific coping reported more stress.
31 Sheffield-Abdullah et., al 2021	African American women aged 25–65 with elevated cardiometabolic risk	Participants' perceptions of the Superwoman role and its role in stress were consistent with that of the Giscombe Superwoman Schema – emphasizing an obligation to manifest strength, an obligation to suppress emotions, and an obligation to help others.
32 Stanton et., al 2017	412 self-identified Black or African American women aged 18–30	A greater endorsement of the SBW ideal was associated with adverse mental health and lower self-esteem. But contrary to expectations, Black-oriented blog use was also associated with more symptoms of depression and anxiety and did not moderate the negative effects of SBW endorsement on well-being.
33 Thomas et., al 2022	140 Midlife (aged 30–50) African American women residing in the San Francisco Bay area	Among the five defining components of the SWS, resistance to being vulnerable was the only component that was independently associated with relative telomere length – with higher resistance predicting longer telomeres (less aging).

Lead author, year	Sample Description	Findings related to Black maternal mental and perinatal health
34 Wade et., al 2022	Black college women attending a large southern HBCU	Participants reported a variety of concerns and challenges regarding their health, with the greatest health-related challenges being mental health, obesity, and relationships with Black men. Regarding how they would want health promotion programs to be structured, participants reported a desire for classes that are fun, interactive, informative, educational, accessible, involve group interaction, and incentivize participation.
35 Watson-Singleton, 2017	158 African American women, aged 18 to 59 years, from across the United States	The SBW schema was positively associated with psychological distress and inversely associated with perceived emotional support. In addition, perceived emotional support was found to partially mediate the link between the SBW schema and psychological distress
36 Watson & Hunter, 2015	95 women who self-identified as African American and who were between the ages of 18 and 65 years	Increased SBW endorsement was found to predict greater anxiety and depression among AA women. Attitudes toward professional help-seeking did not moderate the associations between SBW endorsement and anxiety or depression. However, SBW endorsement was inversely associated with two facets of help-seeking attitudes – psychological openness and help-seeking propensity.
37 Watson & Hunter, 2016	13 college students and community members, between the ages of 18 and 65	Shared understandings regarding the tensions associated with the SBW schema were similarly discovered across education and age level. Three main tensions – to be psychologically durable yet not engage in behaviors that preserve psychological durability, to be equal yet be oppressed, and to be feminine yet reject traditional feminine norms – were identified.
38 West et., al 2016	113 Black women college students from an urban, New England university	Participants highly endorsed the description of the SBW as strong/assertive, independent, and caring. However, Contrary to scholarly definitions, participants also highly endorsed the SBW as hardworking/ambitious, educated, and self-confident.
39 Woods-Giscombe et., al 2019	Study I: 48 African American women from a range of age and other sociodemographic characteristics Study II: 561 African American women, aged 18–65 Study III: 130 women self-identifying as a African American or Black women over the age of 18.	Preliminary evidence supporting the Giscombe Superwoman Schema Questionnaire's validity as a measure of SWS was established through three separate studies which substantiated the questionnaire's factor structure (aligning with the SWS), internal consistency, temporal stability, and construct validity.
40 Woods-Giscombe et., al 2016	48 African American women aged 18 or older	Major components of the SWS, in conjunction with perceived stigma, religious and spiritual concerns, and a desire for culturally sensitive providers, influenced participants' perceptions and use of mental healthcare.

Table 4.

SBW schema and depression

The association between SBW endorsement and depression yields varied but predominantly positive research findings. The scant research contradicting these findings can be contextualized by the methodology employed. For example, in contexts like Nova Scotia where African Canadian women express pride in the SBW

role while acknowledging its toll on health, an inconclusive relationship between SBW endorsement and depression may be explained by the sample investigated (Black women in Nova Scotia vs. other studies that investigated Black women in America), the measures utilized, and the minimal variation in SBW endorsement [27,41]. Other literature pointing to an indirect association between SBW endorsement and depression, with SBW endorsement

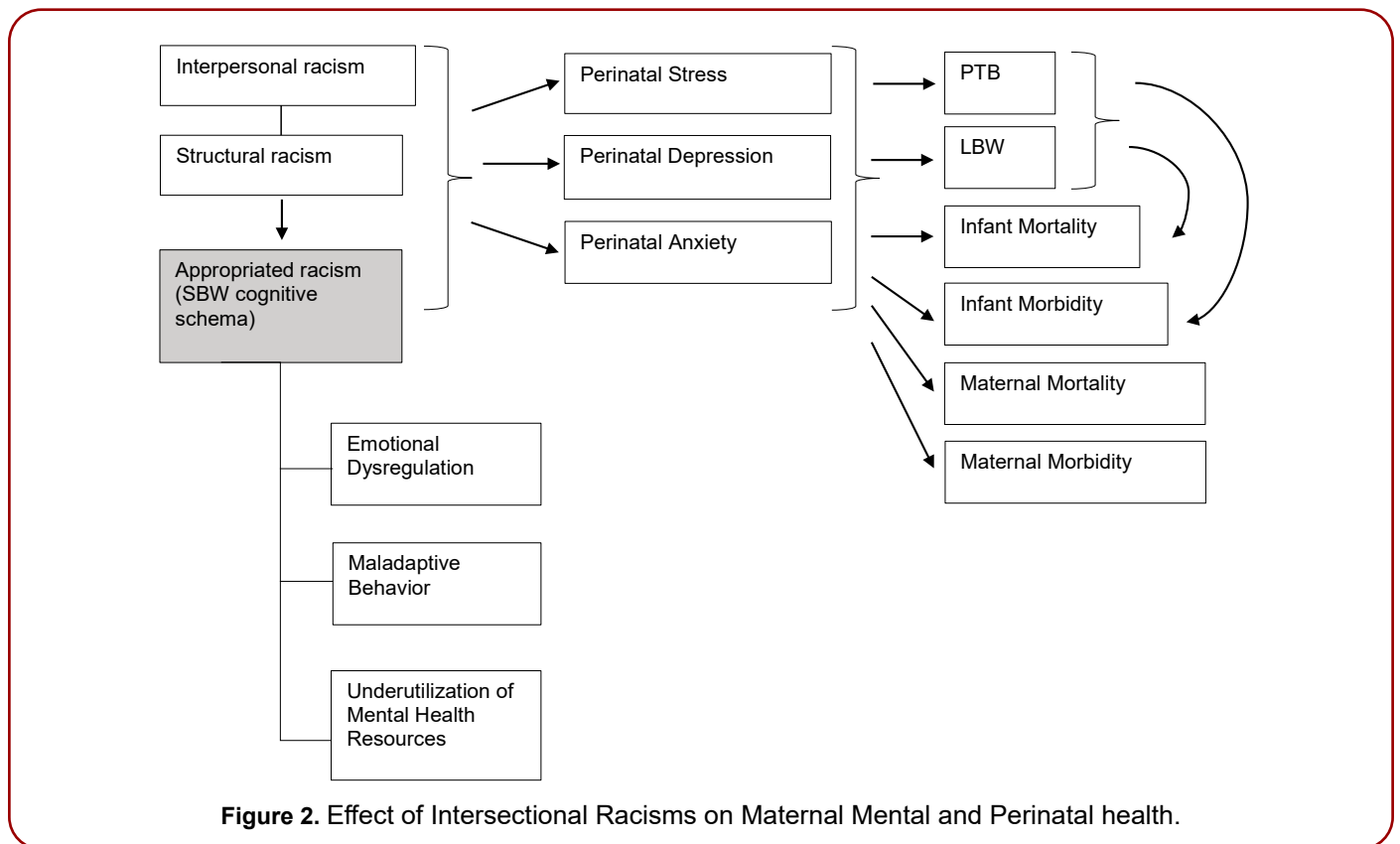


Figure 2. Effect of Intersectional Racisms on Maternal Mental and Perinatal health.

moderating the relationship between stress and depressive symptoms, can be explained by the use of the Depression, Anxiety, and Stress Scales (DASS-21). These scales measure arousal rather than somatic complaints, which Black women are much more likely to experience with depression [37,41].

On the other hand, there is strong support confirming the link between SBW endorsement and depression, with SBW endorsement being significantly and directly associated with depression symptoms [40]. Upon further evaluation, low self-compassion and maladaptive perfection, which is aligned with the SBW motivation to succeed obligation are specifically revealed as mediators of the link between SBW endorsement and depression [40]. Thus, emotional dysregulation has been proposed as a mechanism through which the SBW directly influences the development of depression. 33 Expanding on this, research examining coping styles as mediators of the relationship between SBW endorsement and depression has revealed interesting findings. Among four coping styles - social support, disengagement, spirituality, and problem-oriented/engagement, disengagement was found to partially mediate the association between SBW

endorsement and depressive symptoms [42]. A possible explanation for this is that women who strongly endorse the SBW may deny or minimize stressors, and as a result may adopt avoidant coping strategies not inclusive of social support, spirituality, and problem-oriented/engagement. Adding to existing literature, these results point to emotional dysregulation and maladaptive behavior as mediating the association between SBW endorsement and depression (Figure 2).

Unsurprisingly, SBW endorsement is also associated with suicidal behaviors. SBW endorsement is not only directly related to suicidal ideation but also reinforces the association between depression and suicidal ideation [43]. Drawing on previous studies that defined affect regulation, self-reliance, and caretaking as core components of the SBW, depressed Black women who endorse the SBW schema, particularly affect regulation demonstrate an increased risk for suicidal ideation [43]. While these findings were based on treatment-seeking Black women, later research has extended these results to non-clinical samples as well, finding similar associations between the SBW schema endorsement and suicidal behavior [41].

SBW schema and anxiety

Similar to the inconsistent findings between SBW endorsement and depression, research on the associations between SBW endorsement and anxiety is limited and mixed. While most studies agree that the SBW schema is significantly correlated with anxiety symptoms in Black women [44], some research has suggested that SBW endorsement is neither directly nor indirectly related to anxious symptoms [36]. Contradictory findings may arise from the measurement tools utilized, such as the Depression, Anxiety, and Stress Scales (DASS-21), which as mentioned previously predominantly capture arousal rather than somatic complaints commonly experienced by Black women. Numerous studies have highlighted an association between SBW endorsement and anxiety-related somatic symptoms like paresthesia, migraines, panic attacks, etc. emphasizing the importance of considering cultural nuances in the manifestation of anxiety symptoms among Black women [37,40,44,45].

A strong link between SBW endorsement and anxiety symptomology has been supported by research. 44 Due to the cultural expectations of strength, self-reliance, and self-silence demanded by the SBW role, outward forms of mood and emotional expression are not allowed and thus manifest in the form of physical symptoms [44]. It has been found that endorsement of the SBW may lead to physical symptoms of anxiety such as headaches and bodily aches, which are characteristic of their presentation in Black women [44]. These findings are further contextualized by the observation that anxiety disorders are still prevalent among Black Americans even after considering factors of socioeconomic status. 44 Additionally, determinants of health like work, education, and income levels are also insufficient in explaining low recovery rates from anxiety disorders among Black Americans [44]. These findings imply that cultural factors such as the SBW schema may be influential to the development of and recovery from anxiety in black women.

Similar to the mechanisms by which the SBW schema endorsement contributes to depressive symptoms in Black women, components of maladaptive perfectionism, low self-compassion, and self-silencing have also been found to mediate the relationship between SBW uptake and anxiety [41]. Once again, emotional dysregulation

and maladaptive behavior are implicated as mediating the association between the SBW and poor psychological outcomes (Figure 2.). Given the strong correlations between depression and anxiety themselves, these results are convincing. Another similarity between anxiety and depression is that attitudes toward professional help-seeking did not moderate associations between either with SBW endorsement. However, SBW endorsement in combination with one facet of help-seeking attitudes – psychological openness – was uniquely associated with increased symptoms of anxiety in Black women. This may be because psychological openness places Black women at odds with cultural expectations of strength, self-reliance, and self-silence [44]. According to several studies, the SBW 12 schema necessitates Black women to handle a variety of stressful and traumatic situations without seeking assistance [26,44,46]. As a result, Black women are subjected to psychological and environmental stressors without the resources or assistance needed to successfully deal with them [4].

SBW schema and birth outcomes

Endorsement of the SBW schema affects how Black women view and cope with stress, depression, and anxiety with serious repercussions for both mother and child during pregnancy. Of importance, perinatal anxiety and depression significantly and independently predict low birthweight and preterm infants, as well as increase the risk for infant mortality and morbidity [6-8]. Considering that preterm delivery and low birth weight are major determinants of infant mortality and morbidity, the contributions of SBW uptake to poor perinatal outcomes are compounded (Figure 2.) The mechanisms by which the SBW contributes to poor perinatal outcomes can be explained from a biological perspective – psychological stress experienced by the mother causes hypothalamic-pituitary-adrenal axis (HPA) dysregulation that facilitates hormonal changes which can alter the fetal environment [47]. There is a strong correlation between maternal and fetal cortisol levels, meaning that prenatal stressors such as mood disorder symptomatology can have effects persisting into the postnatal life of offspring [47].

Although offspring development is influenced by many factors, maternal depression and anxiety during the perinatal period have been shown to have extensive

impacts ranging from cognitive to social-emotional deficits. Studies have found that antenatal depression and anxiety significantly increase fetal cortisol concentration and lead to hypothalamic-pituitary-adrenal pathway changes that influence neurocognitive development [8]. This physiological stress response has also been implicated in affecting uterine and umbilical blood flow, reducing the fetus's blood, oxygen, and nutrients [8]. This stress reaction is known to increase the risk of spontaneous abortion. Considering the alarming disparities in infant mortality and morbidity, mitigating the effects of stress exacerbated by the internalized SBW schema is of utmost importance.

SBW schema and the underutilization of mental health resources

For women who endorse the SBW, a constant tension has been observed between needing to be strong and seeking treatment for mental illness [32]. In analyzing attitudes and beliefs regarding the help-seeking process for depression, an excessive adherence to certain characteristics of the SBW schema - masking or ignoring pain to avoid the appearance of weakness, inability to ask for help, and lack of self-care - was found to make it difficult for Black women to acknowledge experiences of depression and seek treatment for it [46]. Another contributor to the underutilization of mental health resources is that the SBW may serve as a source of racial and cultural pride for Black women [26-31]. Such beliefs not only uphold the expectations of the SBW but also serve as a deterrent to seeking mental health treatment [32]. In effect, how women make meaning of the SBW role shapes their views on the help-seeking process for mental health issues. In conjunction with these factors, perceived stigma, religious and spiritual concerns, and a desire for culturally sensitive providers have also been implicated in affecting Black women's perceptions and use of mental health resources [15].

Group therapy/education and self-care have been proposed as possible strategies to address the emotional distress caused by SBW endorsement. In prioritizing oneself and hearing of others emotional struggles, experiences of distress may be normalized and cultural expectations of strength dismantled [47-49]. However, it is important to note that continued suppression of personal needs often creates a "low prioritization" of preventative

care for chronic [14] health conditions. 13 Studies show that only 7% of Black women seek care for mental health problems [34]. As previous research has found that Black women are less likely to seek formal support through mental health services, alternate forms of coping, such as social support, spirituality, and disengagement, become important to explore and utilize in reducing mental health disparities.

SBW schema and culture-specific coping methods

The Africultural Coping Style Inventory (ACSI) becomes relevant to the discussion as it measures unique coping styles among Black Americans. ACSI includes four subscales: cognitive-emotional debriefing, which involves trying to forget a stressful situation, minimize negativity, venting, and engaging in distracting activities; spiritual-centered coping, which involves praying things to work out and relying on spiritual communities for support; collective coping, such as gathering friends and family to help solve a problem and confiding in friends and family; and ritual-centered coping such as lighting a candle or burning incense for strength and guidance or using idols and symbols like a cross for its special powers to deal with a problem [50].

A correlational analysis of ACSI and adherence to SBW attitudes of self-reliance, emotional regulation, and caretaking revealed no statistically significant difference between the forms of coping that make up the ACSI. This suggests that women who identify with SBW use various culture-specific skills to manage stress rather than relying on one specific form [50,51]. Additionally, Black women are more likely to rely on family, friendships, and spirituality to cope with stress rather than seeking professional treatment, partly because of the centrality of self-reliance to the SBW ideal. As perceived emotional support is a vital mechanism facilitating the connection between SBW and psychological distress, the coping mechanisms outlined above indicate a common thread applied for stress management by Black women mainly the development of a social support group [38]. The women form a community of people they can talk with, who provide advice, positive affirmations, and most of all safety [52].

Research has found that informal supports such as family, friends, and community members are important to the care networks that Black women rely on when experiencing mental distress [53,54]. An example of informal support outlined in this body of literature is Black churches. While they are influential in the uptake of the SBW schema, they also present a place for Black women to engage in spiritual connection to cope with mental health struggles [29,55]. The Black church space is an important culturally specific coping method and its inclusion in mental health resource navigation may help engage Black women in seeking formal mental health support. Even when Black women reach out to professional services, these informal supports remain a crucial part of their mental health resources network [53]. Additionally, informal social support may help mitigate the consequences of social, economic, and physical health challenges that Black women are facing, which in turn, may lessen the reliance on the SBW schema to cope with these daily challenges.

Conclusion

As women who strongly endorse the SBW may deny or minimize stressors, current and future research must explore the effectiveness of utilizing culturally sensitive methods to treat mental health disparities amongst Black women. When seeking to engage coping methods that expand beyond the resiliency provided by the SBW schema, researchers must understand that informal supports are crucial to engage and draw upon. Additionally, dismantling

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negative expectations associated with the SBW schema, such as unlimited strength and self-silencing, is equally important for mental health professionals to address. Research has found that feminist, empowerment-based approaches to stress management are effective in developing awareness of the SBW stereotype and coping strategies. 55 These results suggest that the most effective way to address maternal mental and perinatal health disparities linked to the endorsement of the SBW may culturally relevant mental health intervention and comprehensive and culturally sensitive approaches that integrate formal and informal supports.

Acknowledgment

We would like to acknowledge Ashley Dawson, Briana Dawson, Noah Foster, and Mariah Session for their contributions to the background research for this article.

Disclaimer

The views expressed in this article are solely those of the authors.

Author disclosure statement

The authors have no financial conflicts of interest.

Funding information

No funding was received for this article.

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Citation: Natarajan, Sahana and Jennifer R. Warren. "Association of the Strong Black Woman to Maternal Mental Health and Perinatal Outcomes: A Literature Synthesis." *J Gynecol Matern Health* (2024): 107. DOI: [10.59462/JGMH.2.1.107](https://doi.org/10.59462/JGMH.2.1.107)