Journal of Racial and Ethnic Health Disparities
https://doi.org/10.1007/s40615-026-03032-9

Life Sustaining Well-Being Practices and Physiological Health Among Black Men

Dakota W. Cintron[1] · Monique N. Golden[2] · Jennifer M. Boylan[3] · Julia K. Boehm[4] · Tomiko Yoneda[5] · Hebi Wang[6] · Erik M. Hines[7] · James L. Moore III[8]

Received: 4 December 2025 / Revised: 14 April 2026 / Accepted: 26 May 2026

Abstract

Objective To identify culturally grounded well-being practices among Black men in midlife and examine their associations with physiological health.

Methods Analyzing data from the 2004–2005 Midlife in the United States (MIDUS) study, we examined, 116 open-ended responses to the question, "What do you do to make your life go well?" Network topic modeling identified six topics: (1) interpersonal kindness and positive mindset; (2) caring for children; (3) practicing spirituality and faith; (4) maintaining social connections and well-being; (5) avoiding stress; and (6) meaningful work and daily activities. Topic scores, reflecting participants' tendency to discuss these themes, predicted allostatic load and inflammation in structural equation models adjusting for body mass index, chronic conditions, psychological and subjective well-being, age, income, and education.

Results Greater emphasis on meaningful work and daily activities predicted lower inflammation and allostatic load, independent of demographic and psychological covariates ($p<.05$). Other topics were not associated with physiological dysregulation.

Conclusion Everyday narratives of meaningful work and engagement among Black men are closely linked to physiological health markers, highlighting strengths-based, culturally grounded pathways for public health intervention and health equity.

Keywords Black men · Network topic modeling · Allostatic load · Inflammation · Well-being

Introduction

Black men in the United States experience disproportionate disease burden, including elevated risks of hypertension, cardiovascular disease, stroke, and premature mortality [1]. These inequities reflect the cumulative effects of socioeconomic adversity, structural racism, economic instability, and restrictive gender norms that discourage emotional expression and help-seeking [2–4]. A growing body of scholarship on Black men's health further emphasizes how gendered socialization, racialized stressors, and cultural expectations of manhood jointly shape health behaviors and coping processes [5–16]. Scholars working at the intersection of race, gender, and health have established that manhood meanings among African American men, including commitments to being a responsive provider, employee, father, and community member, are central to how Black men define themselves and manage their health across the life course [4, 13]. Yet, despite this foundational work, research examining how these culturally grounded definitions of manhood and

✉ Dakota W. Cintron
dakota.cintron@cgu.edu

1 Department of Psychology, Claremont Graduate University, Claremont, CA, USA

2 Connecticut Institute of Technology, University of New Haven, West Haven, CT, USA

3 Department of Health and Behavioral Sciences, University of Colorado Denver, Denver, CO, USA

4 Department of Psychology, Chapman University, Orange, CA, USA

5 Department of Psychology, University of California Davis, Davis, CA, USA

6 Department of Statistics, University of California Davis, Davis, CA, USA

7 Department of Counseling, George Mason University, Fairfax, VA, USA

8 Department of Educational Studies, The Ohio State University, Columbus, OH, USA

Published online: 03 June 2026

well-being relate to physiological health outcomes remains limited [7, 11]. These pressures interact with culturally specific expectations of manhood, shaping how Black men define responsibility, resilience, and the daily practices that support their health [1, 3, 17, 18].

Although chronic stress is a key pathway linking social determinants of health to physiological dysregulation [19, 20], a growing body of research across diverse populations suggests that psychosocial well-being shapes both psychological experience and biological functioning, with meaningful associations with immune, cardiovascular, and neuroendocrine outcomes [7, 10, 21–30]. Psychological well-being, particularly eudaimonic dimensions such as purpose in life, personal growth, and positive relations with others, has been linked to lower inflammation, reduced allostatic load, and improved cardiovascular functioning across general population samples, suggesting that how people understand and enact their lives has downstream physiological consequences [31]. Sense of purpose in life, sense of control, and social support have each been identified as what Lachman and Schiloski [32] term "psychosocial anti-inflammatories": in the Midlife in the United States (MIDUS) biomarker sample, a composite of these three resources prospectively predicted lower chronic inflammation, better functional health, and fewer chronic conditions over a nine-year follow-up, with inflammation operating as a mediating mechanism. Longitudinal evidence from the Health and Retirement Study (HRS) indicates that higher purpose in life predicts a lower risk of developing elevated C-reactive protein over an eight-year period among older adults, with effects in men persisting after adjusting for health behaviors, suggesting that stress-buffering mechanisms may also underlie the association [33]. Still, the culturally grounded ways in which Black men describe and practice health-sustaining behaviors remain underexamined [4, 34].

A meta-synthesis of qualitative research on Black men's mental health and well-being found that male gender socialization and economic status operated alongside racism as central influences on psychological outcomes, and that culturally specific forms of coping, social connection, and meaning-making played critical roles in buffering stress [7]. That review called for an intersectoral research approach capable of simultaneously addressing the intersection of race, gender, class, and context, rather than treating these as independent influences, in order to generate a more accurate picture of Black men's health and well-being [7]. Scholars have further argued that research on Black men's health must move beyond cataloguing risks toward identifying the social and cultural resources, including adaptive masculine role commitments and community connections, that Black men draw on to sustain their health in the face of persistent adversity [4, 35]. Addressing this gap is essential for understanding the forms of adaptive masculinity that promote well-being in contexts of chronic stress and structural inequities.

Research consistently shows that Black adults carry higher burdens of allostatic load and inflammatory biomarkers compared with White counterparts, even after adjusting for socioeconomic status, reflecting the cumulative "wear and tear" of chronic stress [36, 37]. Understanding the psychosocial and identity-related factors that buffer these risks is critical for advancing contemporary models of masculinity that emphasize resilience, purpose, and well-being. Thorpe and Whitfield [11] have called for a next generation of research examining how psychosocial factors, including discrimination, mastery, social support, and the meaning Black men assign to their roles and responsibilities, interact with biological pathways to shape health disparities in Black men across the life course, yet their biological correlates remain understudied relative to their documented importance [11, 38, 39]. Examining how Black men articulate these practices offers insight into the everyday enactments of masculinity that may foster resilience and physiological health.

The present study draws on qualitative and quantitative data from the MIDUS study [40, 41] to examine how midlife Black men describe the strategies that sustain their lives and how these self-defined practices correspond to physiological health outcomes. We applied network topic modeling [23, 42, 43] to identify shared thematic patterns in participants' narrative responses. Network topic modeling identifies clusters of co-occurring words to reveal latent themes in narrative text. This mixed-method framework combines the interpretive depth of qualitative inquiry with the inferential rigor of quantitative analysis, identifying culturally grounded expressions of well-being while preserving participants' own language and perspectives [44, 45]. Consistent with an intracategorical intersectional approach [12, 13, 46], this study centers within-group variation in Black men's experiences rather than making between-group comparisons, allowing for more nuanced examination of how intersecting social positions shape lived experiences and meaning-making processes. This design responds to calls in the Black men's health literature for intersectional and intersectoral research that considers how race, gender, class, age, and context jointly shape men's health, rather than examining these forces in isolation [7, 13]. This framing also reflects a strengths-based perspective [47], specifically an identity-specific approach that foregrounds the cultural resources and values tied to Black men's lived experience, examining how the daily practices through which well-being is expressed may support healthy physiological responding [23, 42, 45].

Methods

Participants

Data were drawn from the Midlife in the United States (MIDUS) study, a national longitudinal survey that began in 1995 to investigate biopsychosocial aspects of health and aging among noninstitutionalized, English-speaking U.S. adults aged 25–74. The MIDUS core sample has been surveyed across three waves: MIDUS I (1995–1996; $n = 7{,}108$), MIDUS II (2004–2006; $n = 5{,}555$), and MIDUS III (2013–2015; $n = 3{,}683$). At MIDUS II, a supplemental sample of Black adults from Milwaukee, Wisconsin was added to enhance racial representation. A subset of MIDUS II respondents ($n = 1{,}255$; 16% from Milwaukee) participated in biological data collection. In 2011–2014, the MIDUS Refresher cohort ($n = 4{,}085$) was recruited to parallel the age and gender distribution of the baseline core sample, and a new cohort of Black adults from Milwaukee was also recruited. A subsample of MIDUS Refresher respondents ($n = 863$; 14% Milwaukee) provided biological data [40, 41].

The analytic sample comprised 116 Black men from the MIDUS II and MIDUS Refresher cohorts who provided valid responses to the open-ended question, written as part of the self-administered questionnaire, "What do you do to make your life go well?" Approximately half were drawn from the MIDUS II and MIDUS Refresher Milwaukee samples, and the other respondents were recruited via random digit dialing. All participants also completed the MIDUS Biomarker Project, which involved a 24-hour inpatient protocol including physical examination, fasting blood draw, and overnight urine collection at General Clinical Research Centers in Washington, D.C., Los Angeles, and Madison [48].

All MIDUS procedures were approved by the University of Wisconsin–Madison Institutional Review Boards. Public-use data and documentation are available at https://midus.colectica.org.

Measures

Open-Ended Responses

The responses to the question, "What do you do to make your life go well?" were used to derive the topics in the network topic model. Several preprocessing steps were applied to prepare the text data for analysis. First, responses were converted to lowercase and stripped of punctuation and whitespace. Standard English stopwords (e.g., "I", "the") and custom stopwords derived from the question stem (e.g., "make", "my", "life") were removed using the tm R package [49]. The remaining text was tokenized into unigrams (individual words; e.g., 'work,' 'family,' 'health'). Spelling errors were identified and corrected using the hunspell R package [50].

Physiological Health Outcomes

Two outcomes were examined: allostatic load and inflammation. Allostatic load was operationalized as a 24-biomarker composite spanning seven physiological systems. Cardiovascular functioning was indexed by systolic blood pressure, diastolic blood pressure, and heart rate. Lipid metabolism was represented by waist-hip ratio, triglycerides, high density lipoprotein cholesterol, and low density lipoprotein cholesterol. Glucose metabolism included glycosylated hemoglobin (HbA1c), fasting glucose, and homeostatic model assessment of insulin resistance (HOMA-IR). The inflammatory system was captured by C-reactive protein (CRP), interleukin-6 (IL-6), fibrinogen, soluble E-selectin, and soluble intercellular adhesion molecule-1 (sICAM-1). Sympathetic activity was assessed via urinary epinephrine and norepinephrine. Hypothalamic-Pituitary-Adrenal (HPA) axis functioning was assessed via urinary cortisol and dehydroepiandrosterone sulfate (DHEA-S); parasympathetic activity was assessed via five indices: heart rate variability, standard deviation of R-R intervals (SDRR), root mean square of successive differences (RMSSD), and low-and high-frequency spectral power. Biomarkers with skew > |1.5| were Box–Cox transformed. Participants on medication for hypertension, hyperlipidemia, or diabetes were assigned a score of 1 for the respective system [51]. For each biomarker, high-risk quartiles were coded 1, others 0; system-level scores reflected the proportion of biomarkers in the high-risk range [52]. Inflammation was also modeled as a latent factor based on CRP, IL-6, and fibrinogen, with log transformation applied where appropriate.

Although inflammation is one subsystem within allostatic load [52], we examined it separately given theoretical and empirical interest in inflammatory processes as a distinct physiological pathway. In line with prior MIDUS biomarker studies, allostatic load was treated as an observed composite index reflecting cumulative multisystem burden, consistent with its original conceptualization as a summary indicator of "wear and tear" [20, 52]. By contrast, inflammation was modeled as a latent factor to account for measurement error and to capture the shared variance among CRP, IL-6, and fibrinogen, markers that load strongly onto a common inflammatory pathway [27].

Covariates

Analyses adjusted for a set of covariates to account for potential demographic and health-related confounding. These included age (years), educational attainment, body mass index (BMI), income (log), number of self-reported chronic conditions, and cohort dummy variables to distinguish participants from MIDUS II, MIDUS II Milwaukee, MIDUS Refresher, and MIDUS Refresher Milwaukee. Educational attainment was coded on a 12-point ordinal scale ranging from 1 = no schooling or some grade school (Grades 1–6) to 12 = doctoral or professional degree (e.g., PhD, MD, JD), with intermediate categories reflecting increasing levels of education. To reduce the influence of extreme values, BMI was Winsorized at the 99th percentiles, preserving rank order while limiting the impact of outliers on model estimates.

Psychological and subjective well-being were also included as covariates to account for individual differences in affective functioning and overall life evaluation that may relate to physiological health. Six dimensions of psychological well-being—autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance—were assessed using Ryff's multidimensional scales of psychological well-being [53]. Each scale was standardized, and a composite score was calculated by averaging across dimensions to reflect overall psychological well-being (α=0.90). Subjective well-being was represented by standardized measures of life satisfaction and affective experience [54]. Life satisfaction was derived from self-reported evaluations of overall life circumstances, whereas positive and negative affect were assessed using affective frequency scales. Negative affect scores were reverse-coded so that higher values indicated greater positive functioning. Standardized scores were averaged to yield a composite measure of subjective well-being (α=0.74).

Analysis

Network Topic Modeling

We applied network topic modeling [23, 42, 43] to identify underlying themes in participants' text responses. This approach uses psychometric network analysis to uncover latent structures in textual data by modeling patterns of word co-occurrence [43]. All analyses were conducted on the unigrams (i.e., individual words) derived after text preprocessing; full details of the text preprocessing are provided in the Supplementary Material. Network models were estimated using the *EGA* function in the *EGAnet* package (version 2.3.0) [42, 55] in R (version 4.5.2) [56], with triangulated maximally filtered graphs (TMFG) specified as the network estimation method [43, 55].

Model Selection and Optimization

To determine the appropriate number of topics for the network topic model, we optimized network sparsity and applied the Walktrap community detection algorithm via the *EGA.fit* function in the *EGAnet* package to identify the best-fitting network partition [23, 42]. The Walktrap algorithm identifies communities by simulating random walks through the network, which tend to become trapped in densely connected regions, with the resulting clusters corresponding to latent topics. For each candidate sparsity level in the optimization approach, the Walktrap algorithm was used to estimate the number of communities (topics) and assign words to clusters [23]. The Total Entropy Fit Index (TEFI) was then computed for each solution to evaluate model quality. The final model was selected based on the combination of sparsity and topic structure that minimized TEFI, indicating optimal fit. Full details of the optimization procedure, including the sparsity range evaluated, selection criterion, and final model parameters, are provided in the Supplementary Material along with a visualization of the optimization trajectory (Figure A1).

Computation of Individual Topic Scores

After identifying the network structure, we calculated network topic scores for each participant using the *net.scores* function in *EGAnet*. These scores quantify the degree to which each participant's language aligns with each identified theme (i.e., topic community). These scores are conceptually similar to factor scores in latent variable models, representing an individual's position on each latent topic dimension [43, 57]. *EGAnet* operationalizes topic scores through a formative measurement model, weighting each word by its relative contribution (node importance) to the topic [42]. Scores represent weighted aggregates of the frequencies of topic-relevant words in each participant's response, such that higher values indicate greater use of words associated with the underlying theme.

Topic Interpretation and Labeling

Although network topic modeling statistically identifies word clusters, meaningful interpretation requires integrating quantitative evidence with close reading of participant narratives. Our interpretive process drew on node importance scores, which reflect each word's contribution to its cluster, alongside qualitative examination of high-scoring participant responses. A structured multi-stage procedure was used to develop topic labels. First, the lead investigator reviewed word lists ordered by node importance and selected exemplary responses for each topic. Next, the

remaining co-authors independently examined these materials, generating proposed labels and interpretive refinements. The team then engaged in iterative discussion to resolve differences, grounding decisions in both statistical patterns and textual content. This triangulated approach ensured that final topic labels accurately reflected both the network structure and participants' actual responses.

External Topic Validation

To evaluate the robustness of the network-derived topics, and their associations with physiology, we conducted a set of external validation analyses using an independent dataset containing qualitatively coded themes for the same open-ended question [58]. First, we examined the correspondence between manually coded themes and network-derived topics by computing correlations between the qualitative theme indicators and individual-level network topic scores. This analysis assessed the degree to which the unsupervised network modeling approach recovered patterns consistent with established qualitative coding frameworks. Second, we implemented identical structural equation models using the qualitatively coded themes as predictors of physiological health, mirroring the models used for the network-derived topic scores. This allowed us to examine whether similar associations with physiological outcomes emerged across both approaches.

Structural Equation Modeling (SEM)

Building on the identified topic structure, we conducted SEM to examine associations between participants' topic engagement and physiological health. Network-derived topic scores were included as continuous predictors. Allostatic load was modeled as a continuous observed outcome, while inflammation was represented as a latent construct to account for measurement error across multiple biomarkers. All topic scores were standardized prior to analysis to aid interpretation. Models were estimated in R using the lavaan package (version 0.6.21) [59]. Structural equation model diagrams are available in the supplemental materials.

Research Positionality

To enhance the credibility and depth of topic interpretation, the research team brought together complementary areas of expertise: psychometrics and mixed-methods analysis (DC), higher education and workforce development (MG), psychological well-being and health (JMB, JKB), physiological health (TY, HW), and academic and career outcomes of Black men and boys (EH, JM). This interdisciplinary perspective facilitated critical discussion and reduced the likelihood of idiosyncratic interpretations. Throughout the analytic process, original narratives were repeatedly consulted to ensure labels remained empirically anchored and culturally sensitive.

Results

Participant Characteristics

The analytical sample comprised 116 participants, all identifying as Black men. Mean age was 49.28 years (SD = 10.71). Education ranged from no formal schooling to graduate/professional degrees, with the largest proportions having completed high school (21%), some college (19%), or a 4-year degree or higher (12%). Complete demographic characteristics are presented in Table 1.

Network Model Optimization

After tuning the model sparsity, the analytical sample vocabulary was reduced to 56 unique words. Using the Walktrap community detection algorithm, we determined that a 6-topic structure provided the best representation of the data according to the TEFI. Additional details regarding the optimization procedure and model selection criteria are provided in the Supplementary Material.

Network Topic Structure

The outcomes of the unigram-based 6-topic network model are summarized in Table 2 and Fig. 1. Table 2 details each topic's label, interpretive description, and the most influential words arranged according to node importance. To illustrate how these topics manifest in individual narratives, we also provide representative excerpts from participants whose responses had the highest scores on each topic. Figure 1 offers a visual depiction of how words cluster into topics, with each topic shown in a unique color. Drawing on the ordered word lists and narrative context (Table 2), we assigned descriptive labels to six topics. Illustrative participant narratives for each topic are also provided in Table 2.

1. **Interpersonal kindness and positive mindset**. Emphasizes treating others well, reciprocity, and maintaining a constructive, affirming outlook.
2. **Practicing spirituality and faith**. Reflects reliance on prayer, scripture, and spiritual grounding as central well-being resources.
3. **Caring for children and mind**. Captures caregiving responsibilities and the motivation to maintain stability, employment, and health for one's family.

Table 1 Descriptives

Variable	*N*	Mean	SD	Min	Max	% Missing
Demographics						
Age (years)	116	49.28	10.71	25.00	82.00	0.00
Education	116	6.31	2.47	2.00	12.00	0.00
Income (log)	115	9.74	2.79	0.00	12.40	0.86
Topics						
Interpersonal kindness and positive mindset	116	0.00	1.00	-2.16	4.44	0.00
Practicing spirituality and faith	116	0.00	1.00	-1.86	5.20	0.00
Caring for children and mind	116	0.00	1.00	-1.58	5.65	0.00
Maintaining social connections and well-being	116	0.00	1.00	-2.28	4.71	0.00
Avoiding stress	116	0.00	1.00	-2.95	3.39	0.00
Meaningful work and daily activities	116	0.00	1.00	-2.11	3.53	0.00
Physiological Health and Well-being						
IL6 (log, winsorized)	112	-0.02	0.75	-1.31	2.12	3.45
CRP (log, winsorized)	112	0.41	1.24	-3.94	2.75	3.45
Fibrinogen	113	0.00	1.00	-2.02	2.44	2.59
Allostatic load	101	2.43	1.24	0.33	5.40	12.93
BMI (winsorized)	116	30.09	6.69	16.80	47.46	0.00
Chronic conditions (morbidity)	116	2.90	3.06	0.00	13.00	0.00
Psychological well-being	109	0.00	1.00	-2.81	1.88	6.03
Subjective well-being	116	0.00	1.00	-2.66	1.61	0.00
Cohort						
MIDUS II	116	0.09	0.28	0.00	1.00	0.00
MIDUS II Milwaukee	116	0.50	0.50	0.00	1.00	0.00
MIDUS Refresher	116	0.12	0.33	0.00	1.00	0.00
MIDUS Refresher Milwaukee	116	0.29	0.46	0.00	1.00	0.00

Topic scores function similarly to factor scores and are expressed on a standardized scale, with higher values indicating greater engagement with the corresponding theme. For binary cohort indicators (0 = not in cohort, 1 = in cohort), the mean reflects the proportion of participants belonging to that cohort. Education was coded on a 12-point ordinal scale ranging from 1 = no schooling or some grade school (Grades 1–6) to 12 = doctoral or professional degree (e.g., PhD, MD, JD), with intermediate categories reflecting increasing levels of educational attainment

4. **Maintaining social connections and well-being**. Highlights the role of relationships, shared activities, and relaxation in sustaining emotional balance and belonging.
5. **Avoiding stress**. Encompasses deliberate strategies to manage conflict, prevent escalation, and protect emotional and physical health.
6. **Meaningful work and daily activities**. Represents purposeful engagement in work and everyday pursuits as essential components of "living well."

Topic Associations with Physical Health Outcomes

Table 3 presents the standardized regression coefficients, standard errors, and p-values for each topic predictor. The inflammation latent variable was defined by three indicators (IL-6, CRP, fibrinogen), yielding an exactly identified measurement model. Given the exactly identified measurement structure, fit indices reflect the constraints of the structural model rather than measurement model adequacy; evidence for indicator quality is provided by the standardized loadings (0.58–0.96) and R^2 values (0.34–0.92). Fit indices for the full structural model indicated excellent fit: $\chi^2(32) = 31.62$, $p = .486$, CFI = 1.00, RMSEA = 0.00 [0.00, 0.07], SRMR = 0.028. Seven cases were excluded due to missing data on all covariates.

Topic 6 (Meaningful work and daily activities) emerged as significantly associated with both outcomes. Greater engagement in meaningful work and daily activities was associated with lower inflammation ($\beta = -0.216$, SE = 0.085, $P = .01$) and lower allostatic load ($\beta = -0.221$, SE = 0.101, $P = .03$), indicating that individuals who described engaging in purposeful daily activities exhibited reduced physiological dysregulation. None of the other topic scores were significantly associated with either outcome.

External Topic Validation Results

As detailed in the Supplementary Materials, the network-derived topics demonstrated convergence with previously coded qualitative themes (Table A1). Several network topics were highly correlated with their conceptually aligned qualitative counterparts. For example, Topic 2 (Practicing spirituality and faith) correlated strongly with the qualitative theme of Faith ($r = .51$), and Topic 6 (Meaningful work and daily activities) showed a moderate positive correlation with the Work theme ($r = .55$). These associations indicate that the unsupervised

Table 2 Six topic network model of Black men's life sustaining practices

Topic	Topic Label	Top Six Words (ordered by node importance)	Examples of Top Responses
1	Interpersonal kindness and positive mindset	Positive, treated, attitude, people, treat, maintain	"Think positive, pray. Treat people the way you want to be treated. Love yourself, regardless. Positive self-talk. Listen. Love my wife, family." "Ask God to lead my life in the way that he see's fit. Treat people with kindness and respect the way I want to be treated."
2	Practicing spirituality and faith	First, love, god, bible, believe, right	"Read my bible + pray to Jesus." "First of all, I believe in Jesus Christ, and pray he makes my day go on and for Him to give me the strength to make it and I try to keep myself positive minded and think of love not just for me but others. May God bless us all."
3	Caring for children and mind	Care, kids, take, mind, health, stay	"Stay happy. Take care of my kids. Keep a job. Keep my health and mind in order." "Take care of my health and my kids health and try to make I'm financially secure and my family."
4	Maintaining social connections and well-being	Family, wife, friends, eat, happy, enjoy	"Spend time with my wife; talk to family & friends; spend time with friends; relax; eat well; plan for the future; contribute to society through my professional work." "Love and respect my family. Be helpful and supportive to my wife and kids. Give to the needy. Serve those less fortunate. Try to be a good listener. Read a novel or two. Maintain good friendships. Visit other cultures and places. Visit, see, enjoy the beauty of nature. Seek new friendships. Take good care of my mind and body. Exercise often. Eat healthy. Take my wife on a date often. Make love. Try to walk in others shoes sometimes. Forgive past mistakes. Love myself."
5	Avoiding stress	Others, try, good, like, will, dont	"Well I don't let nobody or nothing aggravate me. When it comes to get physically or verbally mad I either adore the situation or walk away from the situation, that way I don't get stressed out or raised by blood pressure. So might call it being a coward but to me its just another day of surviving." "Pray is number one. (Two), maintain as much as possible a positive mental attitude. Try to keep good people around you. Help others when possible and don't tell anyone else of the good thing you did you will get a great feeling of satisfaction"
6	Meaningful work and daily activities	Much, possible, work, keep, hard, help	"Help others, play sports, work hard." "I work hard and try to keep bills paid & food on the table."

Node importance is calculated by summing the weights of the edges for a word within a given topic

network modeling approach successfully recovered semantic structures consistent with prior human-coded analyses.

Parallel analyses using the qualitatively coded themes as predictors of physiological outcomes produced comparable results (Table A2). The *Work* theme exhibited a marginal negative association with inflammation (β = –0.17, P=.061), mirroring the direction of the significant link observed for the corresponding network-derived topic. Although the association did not reach conventional significance for allostatic load, the direction and magnitude of effects were consistent, reinforcing the robustness of this finding across analytic methods. Overall, these results provide convergent evidence that meaningful work represents a coherent, health-relevant dimension of well-being among Black men, identifiable through both computational and qualitative approaches.

Discussion

This study advances understanding of Black men's masculinity and health by linking their culturally grounded accounts of "what makes life go well" to objective physiological markers. Six well-being themes emerged, with meaningful work and daily activities, encompassing both paid employment and purposeful daily engagement, consistently associated with lower inflammation and allostatic load. These findings suggest that engagement in structured, purposeful activity may serve as a key pathway through which Black men sustain physiological health.

These results also speak directly to evolving models of masculinity relevant. Rather than reflecting rigid or stereotypical expectations, the themes identified here illustrate forms of adaptive masculinity grounded in responsibility,

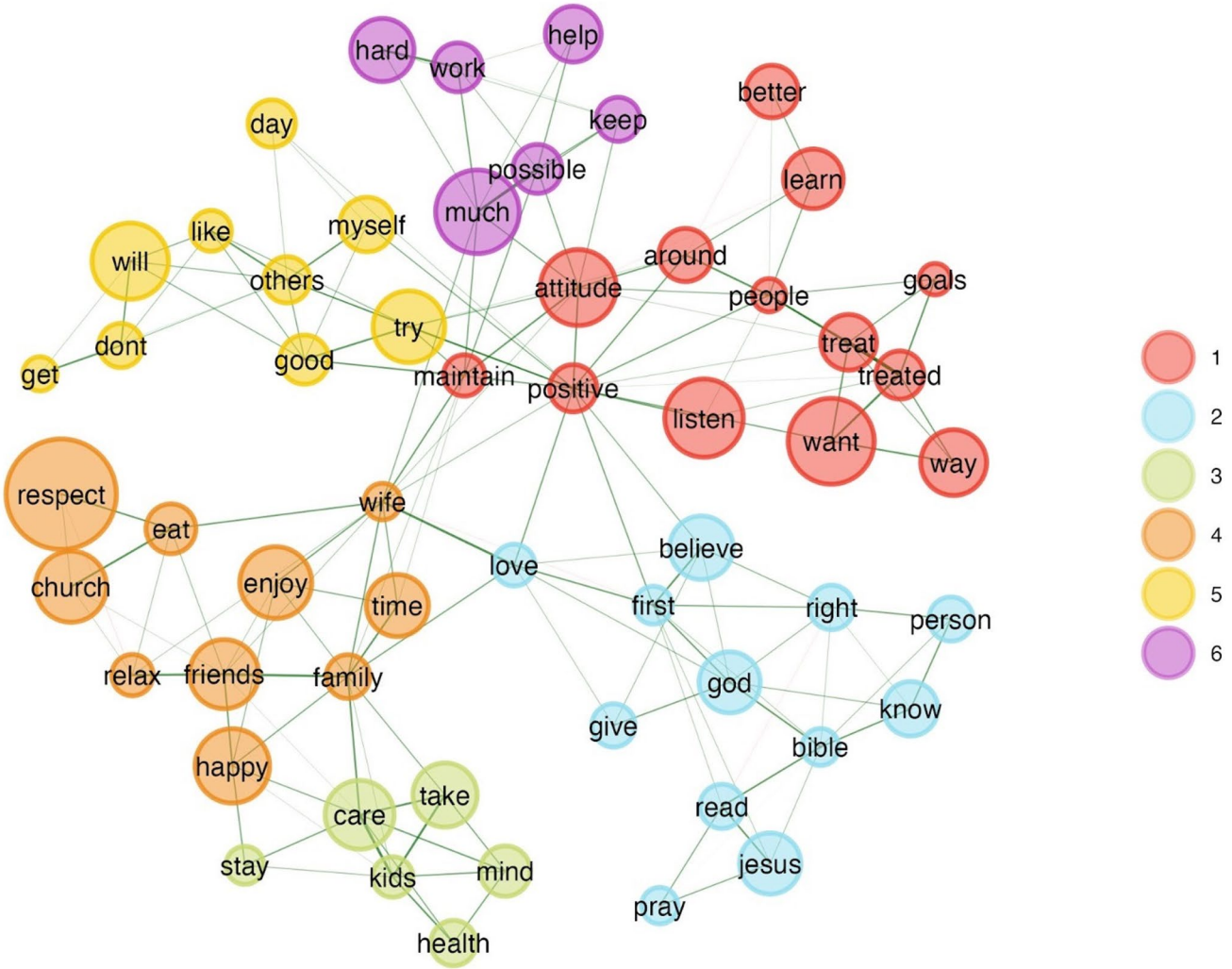

Fig. 1 Six topic network model of Black men's life sustaining practices. Topic 1 – Interpersonal kindness and positive mindset, Topic 2 – Practicing spirituality and faith, Topic 3 – Caring for children and family, Topic 4, Maintaining social connections and well-being, Topic 5 – Avoiding stress, Topic 6 – Meaningful work and daily activities. Each colored cluster represents a distinct topic, with connecting lines (edges) indicating relationships between words. Node size indicates word importance; edge thickness represents strength of word co-occurrence. Network structure estimated using EGAnet package in R

contribution, emotional regulation, and care for others. Although only meaningful work predicted physiological outcomes, the broader themes of kindness, spirituality, caregiving, social connection, and stress avoidance reflect relational and moral dimensions of manhood that organize daily life [3, 4]. Together, these themes highlight the multidimensional nature of masculine identity and the diverse strategies through which men pursue well-being.

The prominence of meaningful work in life aligns with evidence that fulfilling roles buffer stress and support biological regulation. Thomas et al. [60] found that work–family enrichment, where experiences in one role enhance another, was inversely related to inflammatory markers among Black adults. Like the aforementioned investigation, the present study underscores that productive and valued work can operate as a psychosocial resource, buffering stress and supporting biological regulation in populations at elevated physiological health risk. Importantly, the association between meaningful work and reduced physiological dysregulation remained significant even when controlling for psychological and subjective well-being, indicating a construct distinct from general affective positivity or self-evaluation. Rather than abstract beliefs about meaning, these results reflect enacted purpose—purposefulness expressed through daily effort, contribution, and responsibility.

This notion of enacted purpose extends the eudaimonic framework developed by Ryff [31], which emphasizes purpose in life, environmental mastery, and self-realization as central to optimal functioning. Recent theorizing on meaningful work [61] suggests that eudaimonic ideals are realized through congruence between what one values and what one enacts. The

Table 3 Structural equation model of physiological health outcomes

Predictor	Inflammation			Allostatic Load		
	β	SE	*P*	*β*	SE	*P*
Age	0.041	0.086	0.635	0.247	0.094	<0.01
Education	−0.038	0.095	0.688	−0.081	0.101	0.427
Income	0.027	0.108	0.800	−0.008	0.105	0.937
Interpersonal kindness and positive mindset	−0.007	0.074	0.928	0.005	0.079	0.945
Practicing spirituality and faith	−0.015	0.084	0.862	−0.009	0.091	0.920
Caring for children and mind	0.141	0.099	0.154	0.120	0.119	0.315
Maintaining social connections and well-being	−0.117	0.086	0.173	−0.070	0.081	0.385
Avoiding stress	0.098	0.093	0.290	0.004	0.107	0.970
Meaningful work and daily activities	−0.216	0.085	0.011	−0.221	0.101	0.029
BMI	0.541	0.084	<0.01	0.322	0.083	<0.01
Chronic conditions (Morbidity)	0.012	0.117	0.919	0.252	0.147	0.086
Psychological well-being	−0.026	0.107	0.808	−0.082	0.107	0.447
Subjective well-being	−0.129	0.163	0.430	0.017	0.147	0.991
MIDUS II	−0.054	0.077	0.477	0.099	0.076	0.191
MIDUS Refresher Milwaukee	−0.198	0.102	0.052	0.102	0.103	0.324
MIDUS Refresher	−0.007	0.096	0.942	0.163	0.103	0.113
Model Fit Statistics						
χ^2(df)	31.622 (32), p = .486			Model is just-identified		
CFI	1.00			—		
RMSEA[90% CI]	0.00[0.00,0.07]			—		
SRMR	0.028			—		
N	109			109		

β Standardized regression coefficient, *SE* Standard error, *P p*-value

All covariates were entered simultaneously in the structural equation models. The Midlife in the United States (MIDUS) II Milwaukee participants served as the reference group. Dashes (—) indicate that fit indices are not reported for just-identified (saturated) models. Seven cases were excluded due to missing on all covariates

men in this study exemplified this congruence: narratives of "working hard," "helping others," and "doing the best I can" reveal purpose not as an internal attitude but as a lived moral and relational practice. These findings also echo Hammond and Mattis [4], who found that Black men commonly define manhood through responsibility, accountability, and care for others, dimensions that link moral identity with communal contribution. The present study provides biological evidence that such values may serve as protective health resources.

Several pathways may underlie these associations. Meaningful work likely provides structure, predictability, and a sense of efficacy that moderate stress reactivity and promote healthier neuroendocrine profiles [62]. Work affording skill use, contribution, and social reciprocity may strengthen perceived control and reduce sympathetic activation [63]. Feeling useful to others, expressed repeatedly in narratives, may reinforce belonging and buffer loneliness, a known risk factor for inflammation and allostatic load [27]. Together, these processes suggest that purpose-driven engagement operates as both a psychological resource and a biological regulator [64], translating moral and social commitments into embodied resilience. In this sense, meaningful work and daily activity may function as psychosocial "anti-inflammatories" [32], mitigating the wear and tear of chronic stress.

Understanding these processes requires attention to the broader structural context in which Black men pursue purposeful engagement. Persistent inequities in labor markets, wage discrimination, and limited access to stable employment constrain opportunities for meaningful work. Yet, despite these barriers, participants often framed work as a source of strength, dignity, and moral integrity. Their reflections highlight culturally grounded assets that sustain well-being even amid constrained opportunity. Such insights call for public health approaches that recognize the intersection of structure and agency, specifically how systemic barriers shape, but do not wholly define, men's capacity to live purposeful, health-promoting lives.

Limitations and Future Directions

Limitations include the modest biomarker sample, brief narrative responses, and the concurrent collection of biomarker and narrative data, which precludes causal inference. Nuances of expression may have been missed, and unmeasured variables such as discrimination, job quality, or neighborhood context could contribute to observed associations.

An additional limitation concerns potential selection bias introduced by the MIDUS Biomarker Project protocol,

which required participants to complete a 24-hour inpatient visit including physical examination, fasting blood draw, and overnight urine collection. Participation in this protocol likely required sufficient free time, flexible work arrangements, and a degree of trust in the medical care system. As a result, the analytic sample may skew toward men with greater structural resources, which could attenuate associations between stress-related narratives and physiological dysregulation and limit generalizability to Black men facing more severe economic constraints.

Geographic identifiers are not available in the public-use MIDUS data for privacy protection, precluding examination of regional variation in findings. Given the concentration of Black men in the South and regional differences in structural inequality, healthcare access, and cultural context, future studies with geographically identified samples would meaningfully extend this work. Similarly, topic-level demographic and contextual information such as caregiving status, household composition, or religious involvement was not available in a way that could be uniformly applied across topics, which may limit the depth of interpretation across themes.

Finally, this study did not include a comparison group (e.g., White men), which limits the ability to determine whether observed patterns are specific to Black men or reflect more general associations between narrative content and physiological health. Consistent with the intracategorical intersectional framing of this study, the focus was on within-group variation in Black men's experiences rather than between-group differences; however, future research incorporating comparative designs would help contextualize the specificity of these findings.

Future research could extend this work by examining these relationships longitudinally and evaluating whether programs that foster purpose and structure, such as employment initiatives, mentoring, or community engagement, are associated with measurable health benefits. Replication of this mixed-method framework in larger and more diverse samples of Black men, as well as comparative designs including other racial and gender groups, would help establish generalizability and specificity of these findings. Attention to heterogeneity by age, education, and employment stability may further clarify how intersecting identities shape pathways between masculinity, purpose, and health.

Implications for Policy and Practice

Policy

Policies that expand access to meaningful, stable, and dignified work are essential for improving the health of Black men. Because purposeful engagement and contribution emerged as core components of well-being, and were linked to lower inflammation and allostatic load, public health efforts should align with workforce and economic policy. Federal and state agencies can promote health by strengthening protections against racial discrimination, supporting equitable hiring, and expanding pathways to living-wage jobs, apprenticeships, and skill-building programs. Local governments can invest in community-based employment initiatives that integrate mentorship, career development, and access to purpose-driven roles. Addressing structural barriers to meaningful work is not only a matter of economic opportunity but of population health: policies that elevate dignity, contribution, and purpose may directly enhance physiological and psychological well-being among Black men.

Practice

Purposeful engagement in work and daily activities is central to how Black men define living well and is associated with lower physiological dysregulation. Public health programs that expand opportunities for meaningful, stable, and fair work, while recognizing the cultural significance of diligence, responsibility, and contribution, may yield measurable benefits for physical and psychological health. Integrating purpose-centered approaches into employment initiatives, primary care, and community-based interventions can strengthen resilience and reduce chronic disease risk. Public and mental health professionals must also be culturally responsive and client centered, using Black- or African-centered traditions where appropriate to support the holistic needs of Black men. This requires practitioners to develop the cultural awareness, knowledge, and skills necessary to work effectively with this population [65–67].

Conclusion

This study highlights meaningful work and daily activity as a core, health-promoting dimension of how Black men define living well. Far from reflecting narrow or outdated notions of masculinity, these practices emphasize diligence, contribution, and responsibility which are values that connect individual purpose to community well-being. Their association with lower inflammation and allostatic load suggests that fostering opportunities for purposeful engagement may represent a powerful, culturally grounded pathway to improve both mental and physical health among Black men. Recognizing and supporting these practices can inform future research, policy, and intervention efforts aimed at promoting resilience and reducing health disparities among Black men in midlife and beyond.

Supplementary Information The online version contains supplementary material available at https://doi.org/10.1007/s40615-026-03032-9.

Authors' Contributions All authors contributed to study development and manuscript preparation. Conceptual development was led by Dakota W. Cintron, Monique N. Golden, Erik M. Hines, and James L. Moore III. Data processing, analysis, and original draft preparation were conducted by Dakota W. Cintron. Jennifer M. Boylan and Julia K. Boehm led the qualitative coding of narrative responses. The allostatic load methodology used in this study was developed and provided by Tomiko Yoneda and Hebi Wang. All authors reviewed, revised, and approved the final manuscript.

Funding Open access funding provided by SCELC, Statewide California Electronic Library Consortium. This research was supported, in part, by Grant P01-AG020166 from the National Institute on Aging to conduct a longitudinal follow-up of the MIDUS (Midlife in the United States) investigation. The original study was supported by the John D. and Catherine T. MacArthur Foundation Research Network on Successful Midlife Development.

Data Availability All data used in this study are publicly available through the Midlife in the United States (MIDUS) repository and can be accessed at the Inter-university Consortium for Political and Social Research (ICPSR) upon registration. Derived variables and analysis code are available from the corresponding author upon reasonable request.

Code Availability Analytical code for topic modeling and structural equation modeling is available from the corresponding author upon reasonable request.

Declarations

Ethics approval and consent to participate All MIDUS study procedures were approved by the University of Wisconsin-Madison IRBs. This secondary analysis used de-identified, publicly available data and was exempt from additional review. Informed consent was obtained from all original MIDUS participants.

Consent for publication This research uses de-identified archival data; no additional consent for publication was required.

Competing interests The authors have no relevant financial or non-financial interests to disclose.

References

1. Williams DR, Lawrence JA, Davis BA. Racism and Health: Evidence and Needed Research. Annu Rev Public Health. 2019;40:105–25.
2. Chung B, et al. Talking Wellness: A Description of a Community-Academic Partnered project to Engage an African-American Community Around Depression through the Use of Poetry, Film, and Photography. Ethn Dis. 2006;16:67–78.
3. Griffith DM. I AM a Man: Manhood, Minority Men's Health and Health Equity. Ethn Dis 2015;25:287–293.
4. Hammond WP, Mattis JS. Being a Man About It: Manhood Meaning Among African American Men. Psychol Men Masculinity. 2005;6:114–26.
5. Griffith DM, Brinkley-Rubinstein L, Bruce MA, Thorpe RJJ, Metzl JM. The Interdependence of African American Men's Definitions of Manhood and Health. Fam Community Health. 2015;38:284.
6. Watkins DC. A Light on the Path to and Promise for Black Men's Mental Health. Men Masculinities. 2019;22:917–20.
7. Watkins DC, Walker RL, Griffith DM. A Meta-Study of Black Male Mental Health and Well-Being. J Black Psychol. 2010;36:303–30.
8. Watkins DC, Neighbors HW. An initial exploration of what 'mental health' means to young black men. J Mens Health Gend. 2007;4:271–82.
9. Thorpe RJJ, et al. Health Behaviors and All-Cause Mortality in African American Men. Am J Mens Health. 2013;7:S8–18.
10. Thorpe RJJ, et al. Race, Social and Environmental Conditions, and Health Behaviors in Men. Fam Community Health. 2015;38:297.
11. Thorpe RJ Jr., Whitfield KE. Psychosocial Influences of African Americans Men's Health. J Gerontol Ser B. 2018;73:185–7.
12. Griffith DM. Gender health equity: The case for including men's health. Soc Sci Med. 2024;351:116863.
13. Griffith DM. An intersectional approach to Men's Health. J Mens Health. 2012;9:106–12.
14. Griffith DM, Bruce MA, Thorpe Jr RJ, Thorpe J, Thorpe RJ. Men's Health Equity. New York: Routledge; 2019.
15. Gilbert KL, et al. Visible and Invisible Trends in Black Men's Health: Pitfalls and Promises for Addressing Racial, Ethnic, and Gender Inequities in Health. Annu Rev Public Health. 2016;37:295–311.
16. Geronimus AT, Hicken M, Keene D, Bound J. Weathering and Age Patterns of Allostatic Load Scores Among Blacks and Whites in the United States. Am J Public Health. 2006;96:826–33.
17. Geronimus AT, et al. Weathering in Detroit: Place, Race, Ethnicity, and Poverty as Conceptually Fluctuating Social Constructs Shaping Variation in Allostatic Load. Milbank Q. 2020;98:1171–218.
18. Griffith DM. Biopsychosocial Approaches to Men's Health Disparities Research and Policy. Behav Med. 2016;42:211–5.
19. McEwen BS. Protective and Damaging Effects of Stress Mediators. N Engl J Med. 1998;338:171–9.
20. Seeman T, Epel E, Gruenewald T, Karlamangla A, McEwen BS. Socio-economic differentials in peripheral biology: Cumulative allostatic load. Ann N Y Acad Sci. 2010;1186:223–39.
21. Holt-Lunstad J, Smith TB, Baker M, Harris T, Stephenson D. Loneliness and Social Isolation as Risk Factors for Mortality: A Meta-Analytic Review. Perspect Psychol Sci. 2015;10:227–37.
22. Soren A, Ryff CD, Meaningful Work. Well-Being, and Health: Enacting a Eudaimonic Vision. Int J Environ Res Public Health. 2023;20:6570.

23. Cintron DW, Ong AD, Reid MC. What makes life go well? A network topic modeling analysis of well-being practices in adults with chronic pain. Pain Med. 2025;26:189–98.
24. Cintron DW, Ong AD. Well-Being. In: Oxford Res Encyclopedia Psychol 2025.
25. Cintron DW, Ong AD. Trajectories of affective well-being and survival in middle-aged and older adults. Emotion. 2024;24:1149.
26. Cintron DW, Yoneda T, Wang H, Graham EK, Ong AD. Discrepancies in loneliness and social isolation predict cognitive impairment through chronic disease burden. Brain Behav Immun - Health. 2026;54:101232.
27. Ong AD, et al. Social asymmetry and physical health in the United States and Japan. Health Psychol. 2025;44:509–17.
28. Boylan JM, Jennings JR, Matthews KA. Childhood socioeconomic status and cardiovascular reactivity and recovery among Black and White men: Mitigating effects of psychological resources. Health Psychol. 2016;35:957–66.
29. Boylan JM, Cundiff JM, Matthews KA. Socioeconomic Status and Cardiovascular Responses to Standardized Stressors: A Systematic Review and Meta-Analysis. Biopsychosoc Sci Med. 2018;80:278.
30. Boehm JK, et al. Optimism and Cardiovascular Health: Longitudinal Findings From the Coronary Artery Risk Development in Young Adults Study. Biopsychosoc Sci Med. 2020;82:774.
31. Ryff CD. Psychological Well-Being Revisited: Advances in the Science and Practice of Eudaimonia. Psychother Psychosom. 2013;83:10–28.
32. Lachman ME, Schiloski KA. The psychosocial anti-inflammatories: Sense of control, purpose in life, and social support in relation to inflammation, functional health and chronic conditions in adulthood. J Psychosom Res. 2024;187:111957.
33. Guimond A-J, Shiba K, Kim ES, Kubzansky LD. Sense of purpose in life and inflammation in healthy older adults: A longitudinal study. Psychoneuroendocrinology. 2022;141:105746.
34. Utsey SO, Bolden MA, Lanier Y, WilliamsIII O. Examining the Role of Culture-Specific Coping as a Predictor of Resilient Outcomes in African Americans From High-Risk Urban Communities. J Black Psychol. 2007;33:75–93.
35. Griffith DM, Metzl JM, Gunter K. Considering intersections of race and gender in interventions that address US men's health disparities. Public Health. 2011;125:417–23.
36. Duru OK, Harawa NT, Kermah D, Norris KC. Allostatic Load Burden and Racial Disparities in Mortality. J Natl Med Assoc. 2012;104:89–95.
37. Allen JO, Watkins DC, Chatters L, Geronimus AT, Johnson-Lawrence V. Cortisol and Racial Health Disparities Affecting Black Men in Later Life: Evidence From MIDUS II. Am J Mens Health. 2019;13:1557988319870969.
38. Hammond WP, Matthews D, Corbie-Smith G. Psychosocial Factors Associated With Routine Health Examination Scheduling and Receipt Among African American Men. J Natl Med Assoc. 2010;102:276–89.
39. Hammond WP, Matthews D, Mohottige D, Agyemang A, Corbie-Smith G, Masculinity. Medical Mistrust, and Preventive Health Services Delays Among Community-Dwelling African-American Men. J Gen Intern Med. 2010;25:1300–8.
40. Brim OG, Ryff CD, Kessler RC. How Healthy Are We? A National Study of Well-Being at Midlife. University of Chicago Press; 2019.
41. Radler B. The Midlife in the United States (MIDUS) Series: A National Longitudinal Study of Health and Well-being. Open Health Data. 2014;2:e3.
42. Golino H, et al. Investigating the performance of exploratory graph analysis and traditional techniques to identify the number of latent factors: A simulation and tutorial. Psychol Methods. 2020;25:292–320.
43. Golino H, Christensen AP, Moulder R, Kim S, Boker SM. Modeling Latent Topics in Social Media using Dynamic Exploratory Graph Analysis: The Case of the Right-wing and Left-wing Trolls in the 2016 US Elections. Psychometrika. 2022;87:156–87.
44. DiMaggio P. Adapting computational text analysis to social science (and vice versa). Big Data Soc. 2015;2:2053951715602908.
45. Chung CK, Pennebaker JW. Assessing quality of life through natural language use: Implications of computerized text analysis. In: Lenderking WR, Revicki DA, editors. Advancing Health Outcomes Research Methods and Clinical Applications. McLean, VA: Degnon Associates; 2005;79–94.
46. Bauer GR, Scheim AI. Advancing quantitative intersectionality research methods: Intracategorical and intercategorical approaches to shared and differential constructs. Soc Sci Med. 2019;226:260–2.
47. Silverman DM, Rosario RJ, Hernandez IA, Destin M. The Ongoing Development of Strength-Based Approaches to People Who Hold Systemically Marginalized Identities. Personal Soc Psychol Rev. 2023;27:255–71.
48. Dienberg Love G, Seeman TE, Weinstein M, Ryff CD. Bioindicators in the MIDUS National Study: Protocol, Measures, Sample, and Comparative Context. J Aging Health. 2010;22:1059–80.
49. Theußl S, Feinerer I, Hornik K. A tm Plug-In for Distributed Text Mining in R. J Stat Softw. 2012;51:1–31.
50. Al-Hussaini L, Experience. Insights into the Benchmarking Data of Hunspell and Aspell Spell Checkers. J Data Inf Qual. 2017;8(1–13):10.
51. Woo J, Lehrer HM, Whyne E, Steinhardt M. The longitudinal association of psychological resources with chronic conditions and the mediating roles of health behaviours and allostatic load. Psychol Health. 2020;35:629–43.
52. Gruenewald TL, Seeman TE, Karlamangla AS, Sarkisian CA. Allostatic Load and Frailty in Older Adults. J Am Geriatr Soc. 2009;57:1525–31.
53. Ryff CD, Keyes CL. M. The structure of psychological well-being revisited. J Pers Soc Psychol. 1995;69:719–27.
54. Keyes CLM, Shmotkin D, Ryff CD. Optimizing well-being: The empirical encounter of two traditions. J Pers Soc Psychol. 2002;82:1007–22.
55. Golino H, Christensen AP, Moulder R. Exploratory Graph Analysis: A Framework for Estimating the Number of Dimensions in Multivariate Data Using Network Psychometrics. EGAnet 2025.
56. R Core Team. R: A Language and Environment for Statistical Computing. Vienna, Austria: R Foundation for Statistical Computing; 2025.
57. Christensen AP, Golino H. On the equivalency of factor and network loadings. Behav Res Methods. 2021;53:1563–80.
58. Boylan JM, Adams M, Boehm JK. Social Structural Differences in Qualitative Perspectives on Well-Being. Appl Res Qual Life. 2024;19:2633–47.
59. Rosseel Y, lavaan. An R package for structural equation modeling. J Stat Softw. 2012;48:1–36.
60. Thomas ND, et al. Work-family enrichment: A potential buffer of inflammation among black adults? Brain Behav Immun - Health. 2022;25:100517.
61. Lysova EI, Allan BA, Dik BJ, Duffy RD, Steger MF. Fostering meaningful work in organizations: A multi-level review and integration. J Vocat Behav. 2019;110:374–89.
62. Harter JK, Stone AA. Engaging and disengaging work conditions, momentary experiences and cortisol response. Motiv Emot. 2012;36:104–13.
63. Inagaki TK, Eisenberger NI. Giving support to others reduces sympathetic nervous system-related responses to stress. Psychophysiology. 2016;53:427–35.
64. McKnight PE, Kashdan TB. Purpose in Life as a System that Creates and Sustains Health and Well-Being: An Integrative, Testable Theory. Rev Gen Psychol. 2009;13:242–51.

65. Burt I, Hines EM, Moore III. Understanding the Black male experience: Recommendations for clinical, community, and school settings. J Multicult Couns Dev. 2023;51:213–7.
66. Hines EM, et al. A culturally responsive, ecological approach to cultivating and engaging twice-exceptional black males in gifted and talented and special education. Educ Psychol. 2025;60:189–207.
67. Williams III, Humphrey O, Bolden M, M. A., Wagner R. African-centered therapeutic community substance abuse treatment with incarcerated Black males: A pilot model. J Multicult Couns Dev. 2023;51:218–32.