



Mind Body Physical Activity to Reduce Blood Pressure in Black Women: A Systematic Review of Feasibility Evidence

REVIEW

JOLAAD KALINOWSKI 

RACHEL ANDERSON 

NINA UZOIGWE 

CHIFUNIRO CHAGOMERANA

ERIC B. LOUCKS 

SHERRY L. PAGOTO 

ROBERT L. NEWTON, JR. 

SCHEREZADE K. MAMA 

BLAIR T. JOHNSON 

 jubiquity press

*Author affiliations can be found in the back matter of this article

ABSTRACT

Introduction: Black women in the United States have higher rates of hypertension (56.9%) compared to White (36.9%) and Hispanic (36.8%) women. Physical activity can prevent and/or improve hypertension, yet most Black women do not meet the national guidelines for physical activity. Mind body physical activity interventions involve integrating principles of mindfulness with physical activity. The purpose of this review was to synthesize the available literature on the feasibility and acceptability outcomes of interventions and hypertension in Black women.

Methods: This review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) and Assessing the Methodological Quality of Systematic Reviews (AMSTAR). A comprehensive search of three databases (PubMed, APA PsycInfo and Scopus) was performed.

Results: In total, 321 records were screened and 41 were selected for full text review. Four studies met inclusion criteria, including two culturally tailored lifestyle interventions, a peer support and dancing intervention, and a church/faith-based walking intervention. Feasibility outcomes showed high feasibility of mind body physical activity interventions among Black women with hypertension. Three interventions show that incorporating faith-based components (e.g. prayer and gospel music) are acceptable to Black women. Qualitative findings suggest that participants had health-related motivation to participate in activities and the interventions facilitated peer and social support.

Conclusions: This review demonstrates the promise of mind-body physical activity interventions for Black women with hypertension. Future studies should test the efficacy of these interventions as a means for managing hypertension in Black women.

CORRESPONDING AUTHOR:

Jolaade Kalinowski, EdD

Department of Human Development and Family Sciences, The University of Connecticut, 348 Mansfield Rd, Storrs, CT 06269, USA

jolaade.kalinowski@uconn.edu

KEYWORDS:

mindbody interventions; hypertension; mind-body physical activity; African Americans; Women's Health

TO CITE THIS ARTICLE:

Kalinowski, J., Anderson, R., Uzoigwe, N., Chagomerana, C., Loucks, E. B., Pagoto, S. L., Newton, R. L., Mama, S. K., & Johnson, B. T. (2025). Mind Body Physical Activity to Reduce Blood Pressure in Black Women: A Systematic Review of Feasibility Evidence. *Physical Activity and Health*, 9(1), pp. 251–263. DOI: <https://doi.org/10.5334/paah.435>

INTRODUCTION

Hypertension ($\geq 130/80$ mm Hg), or blood pressure that is elevated is a key risk factor for cardiovascular disease (CVD), which is a leading cause of death in the United States (US) (Tsao et al., 2022). Black women have higher rates of hypertension (56.9%) compared to White women (36.9%) in the US (Ostchega & Nguyen, 2020). Black women in the US are also diagnosed with hypertension at earlier ages and have increased risk for hypertension-related complications (e.g., heart failure, stroke, end-stage renal disease) (Lackland, 2014). Physical activity (PA) is recommended in adjunct to or before medication for hypertension (Diaz & Shimbo, 2013; Pescatello et al., 2019). Regular PA can prevent and/or improve hypertension, but uptake remains low among Black women. U.S. National guidelines recommend that adults engage in ≥ 150 minutes per week of moderate intensity PA, (U.S. Department of Health and Human Services, 2018) but only 16.5% of Black women meet these guidelines compared to 24% of White women, 30.2% of Asian women and 18% of Hispanic women (Elgaddal, 2022). Known barriers to PA such as parenting (Ingram et al., 2021), financial strain, and lack of safety (Howard & Bartholomew, 2024; Banthem et al., 2021) disproportionately affect Black women and are significant barriers to PA (Dlugonski et al., 2017; Griffith, 2021; Joseph, Ainsworth, et al., 2015). Sedentary lifestyle and chronic stress are interrelated risk factors for hypertension (Brown et al., 2021; Sfindla & Hadrya, 2020), thus interventions that address both stress and physical inactivity are important. Understanding the feasibility and acceptability of such interventions is a key step toward implementing such interventions. Therefore, the purpose of this review was to synthesize and analyze the existing mind body physical activity interventions among Black women with hypertension.

For this reason, mind body physical activity interventions have the potential to simultaneously manage stress and promote physical activity. Mind body physical activity interventions are broadly defined as movement/physical activity that integrates principles of mindfulness and/or meditation (La Forge, 2005; Yang & Conroy, 2020). Examples of mind body physical activity interventions include yoga (Tenfelde et al., 2018), Tai Chi (Chen et al., 2023), qigong (Low et al., 2024) and/or walking that integrates mindfulness or meditation (e.g. mindful walking) (Litrownik et al., 2021; Teut et al., 2013). Mind body physical activity interventions may be an efficient means of improving both stress and PA outcomes (Brown et al., 2021; La Forge 2005). Benefits of mind body physical activity interventions on stress and other health outcomes have been documented in various non-Black populations, including those at risk for hypertension and CVD broadly, (Blom et al., 2014; Davis et al., 2022) as well as in individuals with diabetes. (Gainey et al., 2016) Several studies have examined the feasibility of stress interventions on hypertension outcomes (Kalinowski et al., 2021). Previous research shows that there is acceptability and feasibility mind body physical activity interventions such as yoga among Black women; yet, persistent barriers remain. For example, perceptions of feeling “othered”, lack of diversity and perceived religious conflicts have been noted as barriers to Black women (Oatis-Ballew et al., 2023; Spadola et al., 2017). Others have discussed the popularity of qigong among Black women and the importance of having dedicated spaces for Black women to engage in such activities (Cromer, 2016). Previous research has documented how culturally tailored mind body physical activity interventions have been associated with greater acceptability among participants. In focus groups comprised of African American women, it was noted that participants desired culturally tailored yoga (Burnett-Zeigler et al., 2019). Despite the promising qualitative data on these topics, there remain few clinical trials or intervention studies to explore the utility of mind body physical activity interventions among Black women with hypertension.

To date, no systematic synthesis has reviewed the feasibility and acceptability of mind body physical activity interventions among Black women with hypertension. Systematic syntheses on mind body interventions in people of color are limited (Sun et al., 2022). Data on the feasibility and acceptability of Mind body physical activity interventions in Black women with hypertension are needed to inform next steps for Mind body physical activity intervention design and delivery. The goal of this review was to synthesize feasibility outcomes of mind body physical activity interventions in Black women with hypertension.

METHODS

SEARCH STRATEGY

We followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines and conformed with the relevant components in the A MeaSurement Tool to Assess

systematic Reviews (AMSTAR) checklist for reviews (Liberati et al., 2009; Shea et al., 2017). We devised a comprehensive search strategy and used three databases for our review: PubMed, APA PsycInfo, and Scopus (Gusenbauer & Haddaway, 2020). We developed search terms and a comprehensive search strategy that was customized for each database. We also reviewed and incorporated medical subject headings (MESH) terms and other search terms (but not limited to), including, “black,” “women,” “hypertension,” “mind body exercise,” “yoga,” “mindful” and “blood pressure”. An initial search was executed in April 2023, followed by an update in September 2024. Please see appendix A for search terms).

INCLUSION CRITERIA

Inclusion criteria for studies were that interventions had mind body physical activity interventions components (e.g., yoga, dance, mindful walking, Tai Chi, Karate), and that the study sample was comprised of at least 75% Black women with hypertension. Given our primary goal of ascertaining feasibility and acceptability, we established a lower end cut off of 75% Black women in included studies. This cut off is consistent with other systematic reviews with minority samples and relevant disciplines (DeLuca et al., 2018; Kamdar et al., 2019). Studies were excluded from this review if participants were under 18 and based outside of the U.S.

SCREENING PROCESS

We used Covidence software, a web-based collaboration software platform to screen for systematic reviews to deduplicate search results and screen studies. It identified and removed 108 duplicate citations. Two reviewers independently screened titles and abstracts (RA and CC). A third party (JK, RA and/or NU) reconciled conflicts and/or discrepancies. For the full text search, two independent reviewers voted to include or exclude studies. A third reviewer broke any ties/resolved discrepancies). We completed a PRISMA flow diagram to describe the process for screening and including articles (Figure 1).

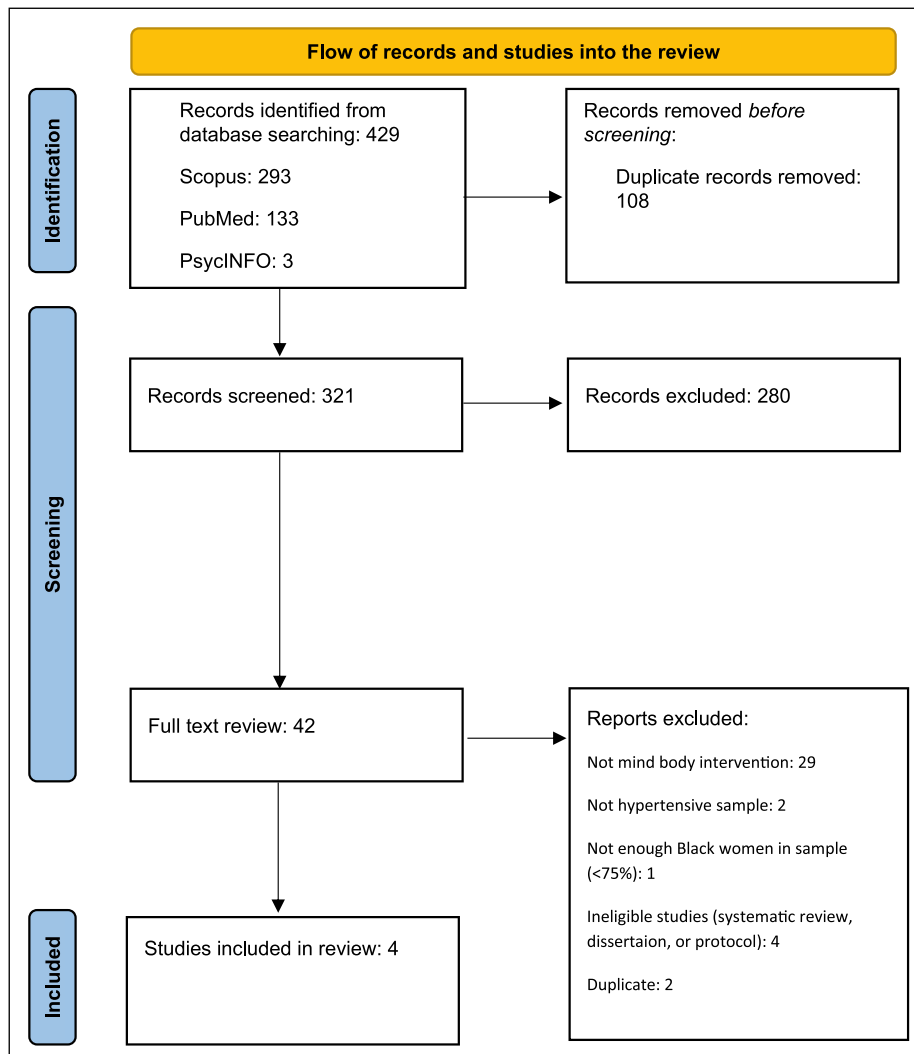


Figure 1 Flow of records and studies into the review.

To assess methodological rigor, two independent reviewers (JK and CI) completed assessments for study appraisal quality by using the 3-item version of the Jadad scale (Jadad et al., 1996), which has been previously cited in systematic reviews for its reliability (Olivo et al., 2008). Study scores range from 0 (lowest quality) to 5 (highest quality). The Jadad scale appears in Appendix B.

OUTCOME MEASURES

We operationalized feasibility to include measures of recruitment and retention and acceptability, similar to other outcomes used in feasibility studies (Pagoto et al., 2022; Waring et al., 2018). Feasibility studies are crucial for optimizing behavioral interventions, in accordance to the Obesity-Related Behavioral Intervention Trials (ORBIT) model (Czajkowski et al., 2015). The ORBIT model asserts that establishing feasibility should occur prior to assessing efficacy (Czajkowski et al., 2015).

ETHICAL CONSIDERATIONS

Reviews are not subject to Institutional Review Board approval and are thus exempt from review. Nonetheless, we assessed ethical considerations from all the included studies to ascertain whether informed consent was obtained.

RESULTS

Our searches across the three search engines yielded 429 results (Scopus $n = 293$, PubMed $n = 133$ and APA PsycInfo $n = 3$). In total, 321 non-duplicate reports were screened (Figure 1). Of these, we excluded 280 based on screenings of titles and abstracts. Ultimately, $n = 4$ studies were included in our review. The largest sub-sample of studies that were excluded were studies that tested interventions that were not mind body physical activity interventions ($n = 29$). Two studies were excluded because the samples did not have hypertension. Four studies were excluded because they were ineligible studies (e.g. systematic review, dissertations, or study protocols). Another study was excluded because the sample was $<75\%$ Black women (Pullen et al., 2008). We identified and included one additional study that did not appear in our formal search, which was a comprehensive lifestyle modification for prediabetic Black women that incorporated meditation and PA components (Bernstein et al., 2014).

STUDY CHARACTERISTICS

Four studies met inclusion criteria: a faith-based walking intervention (Duru et al., 2010), a dance and peer intervention, (Murrock et al., 2009) and two lifestyle interventions that incorporated mind-body components (e.g. mindfulness and stress management) (Bernstein et al., 2014; Thomas et al., 2016). Study articles were published between 2007 and 2016. Three (75%) of the four studies were randomized controlled trials and one study was a program evaluation (not a clinical trial). Three of the four studies had samples in middle age (Bernstein et al. 2014, Mean age of 56, Murrock et al. 2009, 58.5 years and Thomas et al. 2016, 55.15 years). The other study (Duru et al., 2010), focused on older Black women and the mean age was 73.3 years for the intervention group and 72.2 years for the control group. We describe feasibility outcomes including recruitment, retention, and acceptability in Table 1.

PRIMARY STUDY OUTCOMES PERTAINING TO FEASIBILITY AND ACCEPTABILITY

Study 1: Thomas, Gaston, Porter, & Anderson (2016), “Prime Time Sister Circles” (PTSC)

This program evaluated a two-part, 12-week, culturally tailored lifestyle intervention. All participants provided informed consent prior to participation in any study activities. In its Part 1, the sample included $N = 656$ predominantly hypertensive (39.1%) Black women across 31 PTSCs. In its Part 2, the sample included $N = 211$ (45.7% hypertensive) Black women from a subset of PTSCs from Part 1 for the intervention arm and $N = 55$ (63% hypertensive) women for the comparison group arm (Part 2). There were statistically significant reductions in stress in post intervention questionnaires in Part 1 ($p < .0001$). In Part 2, there were increases in physical activity that were statistically significant ($p < .05$). No outcomes regarding acceptability were reported. The intervention included educational modules on PA, nutrition, and self-care/

stress, making it a relatively comprehensive lifestyle intervention. As part of post-intervention questionnaires, participants reported using meditation, prayer, and deep breathing as stress management tools. Feasibility outcomes such as barriers to participation and intervention adherence were not reported. Outcomes regarding attrition were not clear, as the study had two parts: Part 1 evaluated PTSC sites and Part 2 included a subset of PTSC participants with a comparison group.

Study 2: Murrock, Higgins, & Killion (2009), “Dance and Peer Support to Improve Diabetes Outcomes in African American Women”

This trial examined the effects of a 12-week, twice-weekly dance and peer support intervention. Participants signed informed consent and confidentiality agreements prior to participation. All study activities were reviewed and approved by an institutional review board (IRB). Participants included 126 Black women with diabetes (of whom 76.1% were undergoing hypertension treatment). The trial included an intervention arm and control arm (usual care). The intervention incorporated dance classes, goal setting and peer support. gospel dance classes twice per

Table 1 Feasibility Results from Selected Studies.

AUTHOR	NAME OF INTERVENTION	DESCRIPTION OF INTERVENTION	INTERVENTION RECRUITMENT	SAMPLE SIZE AND MEAN AGE	TREATMENT ADHERENCE	INTERVENTION ATTRITION	ADDITIONAL NOTES ABOUT FEASIBILITY OR ACCEPTABILITY
Murrock et al. (2009)	Dance and Peer Support to Improve Diabetes Outcomes in African American Women	Low-impact dance intervention with gospel music (Randomized controlled trial)	The study team was able to recruit 70 volunteers but ultimately assigned 24 to the intervention and 23 to usual care	N = 47 Mean age: 58.5 years 100% Black women	Target goal of 75% intervention completion, but actual attendance not reported	84% retention rate	Study included post-intervention focus groups which showed high acceptability and of the dance program among participants and major themes were that there was health-related motivation to participate, participants felt social support from group activities and that there were some barriers to in-person participation.
Duru et al. (2010)	Sisters in Motion	Faith-based walking intervention (Randomized controlled trial)	Recruited a convenience sample at 3 churches	N = 71 older Black women >60 years old Mean age: 73.3 years intervention group and 72.2 years in control group	85% of attended at least 6 out of 8 sessions (sessions were weekly)	Data was collected from n = 34 intervention participants and n = 28 intervention participants	Demonstrated feasibility of church-based recruitment strategies and engaging older populations in PA
Bernstein et al. (2014)	Fitness, Relaxation, and Eating to Stay Healthy (FRESH)	Lifestyle Modification Trial where with sessions that taught mindfulness techniques. (Randomized Control Trial).	Did not specify where patients were recruited. Intervention took place at a family health center in East Cleveland	N = 27 Black women with prediabetes and elevated BMI Mean age = 56 years	One participant lost to follow up due to loss of interest	Data was collected from n = 12 usual care participants and n = 14 lifestyle modification participants	Short duration in intervention and class time may have led to lack of significant decreases in weight, blood pressure, fasting glucose, or other biometric measures.
Thomas et al. (2016)	Prime Time Sister Circle	Culturally tailored lifestyle intervention for American women	Participants were recruited from 31 community-based organizations in DC, Florida, and Maryland	Primary Study: N = 656 African American women Secondary Study: Intervention N = 211 Control N = 55 Mean age: 55.15 years	Not Reported	Not Reported	Not clearly reported

week for 12 weeks. The goal of the intervention was to improve cardiometabolic outcomes, specifically hemoglobin A1C (HbA1c), blood pressure (BP), and other health-related outcomes such as weight and percentage body fat. The setting was a community-based outpatient clinic. Focus group interviews followed the intervention to assess if and how peer support affected participants' diabetes outcomes. Regarding feasibility, scheduling was noted as a barrier to participation. Facilitators to participation included health-related motivation to participate and peer/social support. One participant noted that a goal was to "lower my blood pressure and diabetes score." In terms of acceptability, there was a target goal of 75% intervention attendance, but actual attendance was not reported. The primary purpose of the study was feasibility, but relevant outcomes were not reported nor was efficacy.

Study 3: Duru, Sarkisian, Leng, & Mangione, (2010). "Sisters in Motion"

This randomized controlled trial tested the efficacy of a faith-based, walking intervention compared to inactive controls in Black women ages 60 or older from 3 Los Angeles area churches (N = 71) (Duru et al., 2010). An IRB board approved all research protocol activities. The intervention incorporated education about physical activity and goal setting, prayer, reading of Bible scripture, and walking. The feasibility of recruitment was noted as "well received" by predominantly African American churches, which ultimately led to ease of recruiting for additional cohorts. Regarding attrition, 91% of the intervention group and 82% of the control group completed follow-up measures at 6 months. About 85% attended at least 6 out of the 8 weekly sessions, demonstrating strong acceptability of the intervention. The primary outcome of the study was steps and secondary outcomes included BP changes. There were significantly greater decreases in systolic blood pressure in the intervention arm (12.5 mmHg) in comparison to the control arm (1.5 mmHg) ($p = 0.007$). In addition, there were significantly greater increases in steps for the intervention arm than the control arm ($p = 0.016$).

Study 4: Bernstein, Gendy, Rudd, Doyle, Fay, Moffett, ... & Golubic, (2014), Fitness, Relaxation, and Eating to Stay Healthy (Fresh)

This randomized controlled trial pilot tested the feasibility of a 6-week lifestyle modification intervention called FRESH, the *Fitness, Relaxation, and Eating to Stay Healthy (FRESH)* compared to usual care (Bernstein et al., 2014). All study related activities were approved by an IRB board. The intervention involved 90 minute-weekly visits in which (N = 27) participants received nutrition education, cooking demonstrations, exercise sessions and training in mindfulness. Participants were Black women aged 18 or older, with prediabetes and BMI >25. Over a third (37%) of participants reported taking blood pressure medications. Acceptability of the intervention appeared to be strong with 92% of participants attending the intervention over the 6-week period and only one participant was lost to follow-up. Given the pilot nature of this study, feasibility, weight, and other metabolic outcomes were considered main outcomes. They reported no statistically significant differences at follow-up pertaining to systolic and diastolic blood pressure. Physical activity was noted as "low" in pre and post measures, but specific outcomes pertaining to physical activity were not reported.

METHODOLOGICAL ASSESSMENT

As table 2 shows, on the Jadad scale for systematic reviews for studies that were included in our review analysis, scores ranged from 1 to 3 (out of 5 possible points). Three studies received a 3 rating (Bernstein et al., 2014; Duru et al., 2010; Murrock et al., 2009) and 1 study received a 1 rating (out of 5 possible points) (Thomas et al., 2016).

Table 2 Jadad Scale
Assessment by Study.

STUDY	1. RANDOMIZED	RANDOMIZATION APPROPRIATE? (± 1)	2. DOUBLE BLIND	BLINDING APPROPRIATE? (± 1)	3. WITHDRAWALS/ DROPOUTS DESCRIBED	TOTAL SCORE
Thomas et al. (2016)	0	0	0	0	1	1
Murrock et al. (2009)	1	+1	0	0	1	3
Duru et al. (2010)	1	+1	0	0	1	3
Bernstein et al. (2014)	1	+1	0	0	1	3

There was substantial variability across the studies with regard to reported outcomes as some studies reported outcomes that other studies did not report. Studies reported outcomes regarding diastolic blood pressure, systolic blood pressure, physical activity, pain levels, weight, BMI, glucose/HbA1c, cholesterol and other physiological outcomes. Given the relatively small samples and/or exploratory nature of many of the studies, many studies did not detect and/or report differences from baseline to follow-up.

DISCUSSION

This review identified four interventions on mind body physical activity interventions and BP among Black women in the United States. That there were only 4 studies suggests that findings in this domain are limited. Moreover, there was substantial variability of interventions across studies regarding interventions (type and emphasis (e.g. walking, dance, nutrition and general lifestyle modification) as well as population samples and intervention duration. The limited available studies and high variability across studies highlights the importance of conducting preliminary and pilot studies that explore mind body physical activity interventions in Black women with hypertension. Although many of the results can be considered promising, much more evidence is required to establish efficacy with regard in its use for hypertension treatment among Black women. Nonetheless, our findings show some preliminary feasibility and acceptability of mind body physical activity interventions among Black women with hypertension.

Of the four qualifying studies, three were RCT designs, and one study was not. Regarding age, most studies (three) focused on middle aged Black women and one study focused on older women ([Duru et al., 2010](#)). More studies in populations across the lifespan are needed to assess feasibility and acceptability and whether there are key nuances with interventions delivery, feasibility and acceptability that may be salient to different age groups.

Although there was substantial variability across studies with regard to intervention type or duration, there were notable salient findings with regard to characteristics of interventions. For example, the apparent feasibility of incorporating gospel music in 2 of the 4 interventions is especially noteworthy given the success of incorporating faith-based approaches in other interventions for hypertension management among Blacks in prior research ([Chan et al., 2023](#); [Lancaster et al., 2014](#); [Schoenthaler et al., 2018](#)). A previous study that examined the incorporation of gospel music in a CVD lifestyle intervention found that the incorporation of gospel music and the faith-based approach facilitated higher attendance, engagement and hypertension outcomes among Black participants ([Bittman et al., 2020](#)). Findings also suggest that in addition to gospel music and the incorporation of faith-based components.

As none of the studies included in our review included online or remote intervention delivery, it may be an important consideration for both feasibility and acceptability. A feasibility trial of an online dance/yoga study for Black women with metabolic syndrome (N = 24) reported that 79% of participants found the intervention to be acceptable ([Johnson et al., 2014](#)). This study was excluded from our review because the sample did not report outcomes on hypertensive Black women; nonetheless, it shows promise among Black women more generally ([Johnson et al., 2014](#)). In another study that examined the benefits of yoga among patients with heart failure, attendance in yoga sessions/study activities was 85%, further suggesting feasibility among patients even with heart failure. This study ([Pullen et al., 2008](#)) was excluded from our review because it did not report racial demographics.

Our finding regarding social support and peer support being factors for motivating participants highlights the importance of peer and social support in the context of increased likelihood of PA among Black women ([Joseph, Dutton, et al., 2015](#); [Joseph et al., 2017](#)). Qualitative findings in the dance intervention indicated that perceived benefits included camaraderie, enjoyment, laughter, and acceptance. The peer and social support were also facilitators to setting and monitoring progress toward their goals, as participants actively encouraged and supported each other. The importance of social support has been noted as a facilitator for PA engagement in other interventions among Black women ([Bland & Sharma, 2017](#); [Eyler et al., 1999](#)). The potential importance of social support in physical activity programming for Black women is a key consideration for future interventions and provides insight into potential facilitators for acceptability.

Following application of a formal methodological quality inventory, we noted variation in the range of scores but that none satisfied all items. The main ways that research in this area might improve are by incorporating randomization and blinding in study designs. Given that the utility of mind body physical activity in hypertension is a relatively small emerging field with hypertensive African American women, this result is hardly surprising.

STRENGTHS AND WEAKNESSES

This study has several strengths and limitations. It addresses a critical research gap concerning mind body physical activity interventions among Black women with hypertension. Additionally, we consulted with a professional medical librarian and developed a comprehensive search strategy. We also used a multi-person research team to screen articles, develop codes, and code themes. Additionally, we completed the Jadad methodological quality assessment and this review satisfied all quality items on the AMSTAR-2 (Shea et al., 2017). However, it is important to note that double-blind methods might be difficult, if not impossible given the nature of behavioral interventions. Losing some points for this dimension may be considered less important than the other dimensions in the scale.

Despite these strengths, a limitation is that it is possible that additional studies exist that may have met our criteria but did not appear in our searches/databases. Additionally, we did not conduct a meta-analysis or report on efficacy outcomes given the heterogeneity of study measures/outcomes, intervention duration and small sample sizes. Moreover, some studies did not have complete data on feasibility or acceptability outcomes. Finally, given the variability of studies and reported outcomes, there was heterogeneity in reported metrics and outcomes.

CONCLUSIONS

PA is a known to have beneficial effects on BP (Pescatello et al., 2019), and is widely recommended to patients for BP prevention and control (Diaz & Shimbo, 2013). Our study supports the notion that mind body physical activity programming may be feasible and acceptable among Black women with hypertension, but more research is warranted. Further research with randomized designs and larger samples could be beneficial. More literature that elucidates the short- and long-term effectiveness of mind body physical activity interventions can lead to the development of primary and secondary intervention programs that may play a strong role in reducing the current racial disparity gap in hypertension and CVD.

APPENDIX A1. SEARCH STRATEGY AND TERMS

APA PSYCINFO

(DE "Mindfulness" OR DE "Mindfulness-Based Interventions" OR TI "mindful*" OR AB "mindful*" OR TI "Mind-body" OR AB "Mind-body" OR TI "Mind body" OR AB "Mind body" OR TI "Mind body therapy" OR AB "Mind body therapy" OR TI "Movement therapy" OR AB "Movement therapy" OR TI "Dance therapy" OR AB "Dance therapy" OR TI "Mindfulness Based Interventions" OR AB "Mindfulness Based Interventions") AND (DE "Hypertension" OR DE "Essential Hypertension") OR (DE "Blood Pressure Disorders" OR DE "Hypertension" OR DE "Hypotension" OR DE "Syncope") OR TI "High blood pressure*" OR AB "High blood pressure*" OR TI "Hypertensive" OR AB "Hypertensive" OR TI "Blood pressure*" OR AB "Blood pressure*" OR TI "Elevated blood pressure*" OR AB "Elevated blood pressure*" AND DE "Human Females" OR TI "Woman" OR AB "Woman" OR TI "Women" OR AB "Women" OR TI "Female*" OR AB "Female*" AND (DE "Blacks") OR (DE "African Cultural Groups") OR TI "Black American*" OR AB "Black American*" OR TI "Black*" OR AB "Black*" OR TI "Negro*" OR AB "Negro*" OR TI "African American*" OR AB "African American*" OR TI "Afro-American*" OR AB "Afro-American*" OR TI "Afro American*" OR AB "Afro American*" OR TI "African-American*" OR AB "African-American*"

SCOPUS

hypertens* OR "blood pressure*" OR "elevated blood pressure*" AND "Body movement*" OR "Balance exercise*" OR "Danc*" OR "Meditat*" OR "mind-body exercis*" OR "mind-body therap*" OR "mind body therap*" OR "mind body physical activity" OR "mindful walk*" OR "walk*" AND woman OR women OR female* AND "Black American" OR "American Black" OR

black OR “African American*” OR “American African” OR “Afro-American*” OR “Afro American*” OR “African-American*” AND hypertens* OR “blood pressure*” OR “elevated blood pressure*” AND “Body movement*” OR “Balance exercise*” OR “Danc*” OR “Meditat*” OR “mind-body exercis*” OR “mind-body therap*” OR “ mind body therap*” OR “mind body physical activity” OR “ mindful walk*” OR “walk*” AND woman OR women OR female*

PUBMED

mind-body therapies [mesh:noexp] OR Breathing Exercises [mesh] OR Qigong [mesh] OR Meditation [mesh] OR Relaxation Therapy [mesh] OR Tai Ji [mesh] OR Yoga [mesh] OR Body movement* [tiab] OR Balance exercise* [tiab] OR Controlled breath* [tiab] OR Dance OR [tiab] OR Dancing [tiab] OR Meditat* [tiab] OR Mind-body [tiab] OR Mind-body excercis* [tiab] OR Mind-body therap* [tiab] OR Mind body therap* [tiab] OR Mind body physical activity [tiab] OR Pilates [tiab] OR Qigong [tiab] OR Stress management [tiab] OR Stress reduction [tiab] OR Stress relief [tiab] OR Stress intervention* [tiab] OR Tai chi [tiab] OR Mindful walk* [tiab] OR Walk* [tiab] OR Mind-Body Medicine [tiab] OR Mind Body Medicine [tiab] OR Breathing Exercise* [tiab] OR Relaxation Therap* [tiab] OR Tai Ji [tiab] OR Yoga [tiab] OR Tai-ji [tiab] OR Tai Ji Quan [tiab] OR Taiji [tiab] OR Taijiquan [tiab] OR T'ai Chi [tiab] OR Tai Chi Chuan [tiab] AND “Hypertension”[Mesh] OR High blood pressure* [tiab] OR Hypertens* [tiab] OR Blood pressure* [tiab] OR Elevated blood pressure* [tiab] AND “Black or African American” [mesh] OR Black American* [tiab] OR Blacks [tiab] OR African American* [tiab] OR Afro-American* [tiab] OR Afro American* [tiab] OR African-American* [tiab]

APPENDIX B. JADAD GUIDELINES FOR ASSESSMENT

DIMENSION		SUB SCORE
Randomization	Was the study described as randomized (this includes the use of words such as randomly, random, and randomization)? = 1 point	Give 1 additional point if: For question 1, the method to generate the sequence of randomization was described and it was appropriate (table of random numbers, computer generated, etc.) Deduct 1 point if: For question 1, the method to generate the sequence of randomization was described and it was inappropriate (patients were allocated alternately, or according to date of birth, hospital number, etc.)
Blinding	Was the study described as double blind? = 1 point	Give 1 additional point: If for question 2 the method of double blinding was described and it was appropriate (identical placebo, active placebo, dummy, etc.) Deduct 1 point: If for question 2 the study was described as double blind but the method of blinding was inappropriate (e.g., comparison of tablet vs. injection with no double dummy)
Withdrawals and dropouts	Was there a dropouts description of withdrawals and dropouts? = 1 point	
TOTAL JADAD SCORE		

1. Randomization

A method to generate the sequence of randomization will be regarded as appropriate if it allowed each study participant to have the same chance of receiving each intervention and the investigators could not predict which treatment was next. Methods of allocation using date of birth, date of admission, hospital numbers, or alternation should be not regarded as appropriate.

2. Double blinding

A study must be regarded as double blind if the word “double blind” is used. The method will be regarded as appropriate if it is stated that neither the person doing the

assessments nor the study participant could identify the intervention being assessed, or if in the absence of such a statement the use of active placebos, identical placebos, or dummies is mentioned.

3. Withdrawals and dropouts

Participants who were included in the study but did not complete the observation period or who were not included in the analysis must be described. The number and the reasons for withdrawal in each group must be stated. If there were no withdrawals, it should be stated in the article. If there is no statement on withdrawals, this item must be given no points.

FUNDING INFORMATION

This work was funded by the National Institutes of Health [5K24HL124366], The National Center for Complementary and Integrative Health (NCCIH) [AT011745] and [R01AT011745] and the National Heart Lung and Blood Institute (NHLBI) [K01HL138211, 5K24HL124366].

COMPETING INTERESTS

The authors have no competing interests to declare.

AUTHOR AFFILIATIONS

Jolaade Kalinowski, EdD  orcid.org/0000-0003-1637-0455

Department of Human Development and Family Sciences, University of Connecticut, Storrs, Connecticut, USA

Rachel Anderson  orcid.org/0009-0000-6813-5532

Department of Allied Health Sciences, University of Connecticut, Storrs, Connecticut, USA

Nina Uzoigwe  orcid.org/0000-0002-3253-1215

New York University Grossman School of Medicine, New York, USA

Chifuniro Chagomerana

Department of Nutritional Sciences, University of Connecticut, Storrs, Connecticut, USA

Eric B. Loucks  orcid.org/0000-0002-9962-0386

Mindfulness Center, Brown University, Providence, RI, USA; Department of Epidemiology, Brown University School of Public Health, Providence, RI, USA

Sherry L. Pagoto  orcid.org/0000-0002-2462-8797

Department of Allied Health Sciences, University of Connecticut, Storrs, Connecticut, USA

Robert L. Newton, Jr.  orcid.org/0000-0002-6863-913X

Population and Public Health, Pennington Research Laboratory, Baton Rouge, LA, USA

Scherezade K. Mama  orcid.org/0000-0003-1935-7707

Department of Health Disparities Research, Division of OVP, Cancer Prevention and Population Sciences, The University of Texas MD Anderson Cancer Center, Houston, TX, USA

Blair T. Johnson  orcid.org/0000-0002-2688-0398

Department of Psychological Sciences, University of Connecticut, Storrs, Connecticut, USA

REFERENCES

- Bantham, A., Taverno Ross, S. E., Sebastião, E., & Hall, G. (2021). Overcoming barriers to physical activity in underserved populations. *Progress in Cardiovascular Diseases*, 64, 64–71. <https://doi.org/10.1016/j.pcad.2020.11.002>
- Bernstein, A., Gendy, G., Rudd, N., Doyle, J., Fay, S., Moffett, K., Morrison, S., Bena, J., Cotey, S., Roizen, M., & Golubic, M. (2014). Management of prediabetes through lifestyle modification in overweight and obese African-American women: The Fitness, Relaxation, and Eating to Stay Healthy (FRESH) randomized controlled trial. *Public Health*, 128. <https://doi.org/10.1016/j.puhe.2014.04.005>
- Bittman, B., Poornima, I., Smith, M. A., & Heidel, R. E. (2020). Gospel Music: A Catalyst for Retention, Engagement, and Positive Health Outcomes for African Americans in a Cardiovascular Prevention and Treatment Program. *Advances in Mind-Body Medicine*, 34(1), 8–16.
- Bland, V., & Sharma, M. (2017). Physical activity interventions in African American women: A systematic review. *Health Promotion Perspectives*, 7(2), 52–59. <https://doi.org/10.15171/hpp.2017.11>
- Blom, K., Baker, B., How, M., Dai, M., Irvine, J., Abbey, S., Abramson, B. L., Myers, M. G., Kiss, A., & Perkins, N. J. (2014). Hypertension analysis of stress reduction using mindfulness meditation and yoga: Results from the harmony randomized controlled trial. *American Journal of Hypertension*, 27(1), 122–129. <https://doi.org/10.1093/ajh/hpt134>

- Brown, A., Wilson, D. K., Sweeney, A. M., & Van Horn, M. L. (2021). The Moderating Effects of Social Support and Stress on Physical Activity in African American Women. *Annals of Behavioral Medicine*, 55(4), 376–382.
- Burnett-Zeigler, I., Satyshur, M. D., Hong, S., Wisner, K. L., & Moskowitz, J. (2019). Acceptability of a mindfulness intervention for depressive symptoms among African-American women in a community health center: A qualitative study. *Complementary Therapies in Medicine*, 45, 19–24. <https://doi.org/10.1016/j.ctim.2019.05.012>
- Chan, K. Y., Srivastava, N., Wang, Z., Xia, X., Huang, Z., Poon, A. N., & Reidpath, D. D. (2023). A systematic review and meta-analysis of the effectiveness of hypertension interventions in faith-based organisation settings. *Journal of Global Health*, 13, 04075. <https://doi.org/10.7189/jogh.13.04075>
- Chen, Y., Qin, J., Tao, L., Liu, Z., Huang, J., Liu, W., Xu, Y., Tang, Q., Liu, Y., Chen, Z., Chen, S., Liang, S., Chen, C., Xie, J., Liu, J., Chen, L., & Tao, J. (2023). Effects of Tai Chi Chuan on Cognitive Function in Adults 60 Years or Older With Type 2 Diabetes and Mild Cognitive Impairment in China: A Randomized Clinical Trial. *JAMA Network Open*, 6(4), e237004. <https://doi.org/10.1001/jamanetworkopen.2023.7004>
- Cromer, F. B. (2016). Black Women Take Their Health into Their Own Hands: The Het Heru Healing Dance and Auset Qigong. In *Challenging the Legacies of Racial Resentment*. Routledge. <https://doi.org/10.4324/9781315081595-8>
- Czajkowski, S. M., Powell, L. H., Adler, N., Naar-King, S., Reynolds, K. D., Hunter, C. M., Laraia, B., Olster, D. H., Perna, F. M., & Peterson, J. C. (2015). From ideas to efficacy: The ORBIT model for developing behavioral treatments for chronic diseases. *Health Psychology*, 34(10), 971. <https://doi.org/10.1037/hea0000161>
- Davis, D., Carrier, B., Cruz, K., Barrios, B., Landers, M., & Navalta, J. (2022). A Systematic Review of the Effects of Meditative and Mindful Walking on Mental and Cardiovascular Health. *International Journal of Exercise Science*, 15(2), 1692–1734. <https://doi.org/10.70252/LTNA9604>
- DeLuca, S. M., Kelman, A. R., & Waelde, L. C. (2018). A Systematic Review of Ethnoracial Representation and Cultural Adaptation of Mindfulness- and Meditation-Based Interventions. *Psychological Studies*, 63(2), 117–129. <https://doi.org/10.1007/s12646-018-0452-z>
- Diaz, K. M., & Shimbo, D. (2013). Physical activity and the prevention of hypertension. *Current Hypertension Reports*, 15(6), 659–668. <https://doi.org/10.1007/s11906-013-0386-8>
- Dlugonski, D., Martin, T. R., Mailey, E. L., & Pineda, E. (2017). Motives and barriers for physical activity among low-income black single mothers. *Sex Roles*, 77(5), 379–392. <https://doi.org/10.1007/s11199-016-0718-7>
- Duru, O. K., Sarkisian, C. A., Leng, M., & Mangione, C. M. (2010). Sisters in Motion: A Randomized Controlled Trial of a Faith-Based Physical Activity Intervention. *Journal of the American Geriatrics Society*, 58(10), 1863–1869. <https://doi.org/10.1111/j.1532-5415.2010.03082.x>
- Elgaddal, N. (2022). *Physical Activity Among Adults Aged 18 and Over: United States, 2020*. 443. <https://doi.org/10.15620/cdc.120046>
- Eyler, A. A., Brownson, R. C., Donatelle, R. J., King, A. C., Brown, D., & Sallis, J. F. (1999). Physical activity social support and middle- and older-aged minority women: Results from a US survey. *Social Science & Medicine*, 49(6), 781–789. [https://doi.org/10.1016/S0277-9536\(99\)00137-9](https://doi.org/10.1016/S0277-9536(99)00137-9)
- Gainey, A., Himathongkam, T., Tanaka, H., & Suksom, D. (2016). Effects of Buddhist walking meditation on glycemic control and vascular function in patients with type 2 diabetes. *Complementary Therapies in Medicine*, 26, 92–97. <https://doi.org/10.1016/j.ctim.2016.03.009>
- Gaston, M. H., Porter, G. K., & Thomas, V. G. (2007). Prime Time Sister Circles: Evaluating a gender-specific, culturally relevant health intervention to decrease major risk factors in mid-life African-American women. *Journal of the National Medical Association*, 99(4), 428.
- Griffith, M. (2021). *Recognizing the Unique Barriers to Physical Activity in African American Women*.
- Gusenbauer, M., & Haddaway, N. R. (2020). Which academic search systems are suitable for systematic reviews or meta-analyses? Evaluating retrieval qualities of Google Scholar, PubMed, and 26 other resources. *Research Synthesis Methods*, 11(2), 181–217. <https://doi.org/10.1002/jrsm.1378>
- Howard, S. L., & Bartholomew, J. B. (2024). Barriers and facilitators to physical activity among Black women: A qualitative systematic review and thematic synthesis. *PLOS Global Public Health*, 4(12), e0003202. <https://doi.org/10.1371/journal.pgph.0003202>
- Ingram, G., McCormick, A., & Gibson, K. (2021). Parents' experiences of starting and maintaining exercise: A qualitative systematic review. *Psychology of Sport and Exercise*, 57, 102058. <https://doi.org/10.1016/j.psychsport.2021.102058>
- Jadad, A. R., Moore, R. A., Carroll, D., Jenkinson, C., Reynolds, D. J. M., Gavaghan, D. J., & McQuay, H. J. (1996). Assessing the quality of reports of randomized clinical trials: Is blinding necessary? *Controlled Clinical Trials*, 17(1), 1–12. [https://doi.org/10.1016/0197-2456\(95\)00134-4](https://doi.org/10.1016/0197-2456(95)00134-4)
- Johnson, C. C., Taylor, A. G., Anderson, J. G., Jones, R. A., & Whaley, D. E. (2014). Feasibility and Acceptability of an Internet-Based, African Dance-Modified Yoga Program for African-American Women with or at Risk for Metabolic Syndrome. *Journal of Yoga & Physical Therapy*, 4, 1000174. <https://doi.org/10.4172/2157-7595.1000174>

- Joseph, R. P., Ainsworth, B. E., Keller, C., & Dodgson, J. E. (2015). Barriers to physical activity among African American women: An integrative review of the literature. *Women & Health*, 55(6), 679–699. <https://doi.org/10.1080/03630242.2015.1039184>
- Joseph, R. P., Ainsworth, B. E., Mathis, L., Hooker, S. P., & Keller, C. (2017). Utility of Social Cognitive Theory in Intervention Design for Promoting Physical Activity among African-American Women: A Qualitative Study. *American Journal of Health Behavior*, 41(5), 518–533. <https://doi.org/10.5993/AJHB.41.5.1>
- Joseph, R. P., Dutton, G. R., Cherrington, A., Fontaine, K., Baskin, M., Casazza, K., Lorch, D., Allison, J. J., & Durant, N. H. (2015). Feasibility, acceptability, and characteristics associated with adherence and completion of a culturally relevant internet-enhanced physical activity pilot intervention for overweight and obese young adult African American women enrolled in college. *BMC Research Notes*, 8(1), 209. <https://doi.org/10.1186/s13104-015-1159-z>
- Kalinowski, J., Kaur, K., Newsome-Garcia, V., Langford, A., Kalejaiye, A., Vieira, D., Izeogu, C., Blanc, J., Taylor, J., & Ogedegbe, O. (2021). Stress interventions and hypertension in Black women. *Women's Health*, 17, 17455065211009751. <https://doi.org/10.1177/17455065211009751>
- Kamdar, N., Rozmus, C. L., Grimes, D. E., & Meininger, J. C. (2019). Ethnic/Racial Comparisons in Strategies Parents Use to Cope with Food Insecurity: A Systematic Review of Published Research. *Journal of Immigrant and Minority Health*, 21(1), 175–188. <https://doi.org/10.1007/s10903-018-0720-y>
- La Forge, R. (2005). Aligning mind and body: Exploring the disciplines of mindful exercise. *ACSM's Health & Fitness Journal*, 9(5), 7–14. <https://doi.org/10.1097/00135124-200509000-00006>
- Lackland, D. T. (2014). Racial differences in hypertension: Implications for high blood pressure management. *Am J Med Sci*, 348(2), 135–138. <https://doi.org/10.1097/maj.0000000000000308>
- Lancaster, K. J., Schoenthaler, A. M., Midberry, S. A., Watts, S. O., Nulty, M. R., Cole, H. V., Ige, E., Chaplin, W., & Ogedegbe, G. (2014). Rationale and design of Faith-based Approaches in the Treatment of Hypertension (FAITH), a lifestyle intervention targeting blood pressure control among black church members. *American Heart Journal*, 167(3), 301–307. <https://doi.org/10.1016/j.ahj.2013.10.026>
- Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P., Clarke, M., Devereaux, P. J., Kleijnen, J., & Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: Explanation and elaboration. *Journal of Clinical Epidemiology*, 62(10), e1–e34. <https://doi.org/10.1016/j.jclinepi.2009.06.006>
- Litrownik, D., Gilliam, E. A., Wayne, P. M., Richardson, C. R., Kadri, R., Rist, P. M., Moy, M. L., & Yeh, G. Y. (2021). Development of a Novel Intervention (Mindful Steps) to Promote Long-Term Walking Behavior in Chronic Cardiopulmonary Disease: Protocol for a Randomized Controlled Trial. *JMIR Research Protocols*, 10(4), e27826. <https://doi.org/10.2196/27826>
- Low, S. L. K., Ho, G. F., Liu, B., Koh, E.-S., Fei, Y., Teo, C. S., & Zhu, X. (2024). Exploring Guolin Qigong (Mind-Body Exercise) for Improving Cancer Related Fatigue in Cancer Survivors: A Mixed Method Randomized Controlled Trial Protocol. *Integrative Cancer Therapies*, 23, 15347354241252698. <https://doi.org/10.1177/15347354241252698>
- Murrock, C. J., Higgins, P. A., & Killion, C. (2009). Dance and peer support to improve diabetes outcomes in African American women. *The Diabetes Educator*, 35(6), 995–1003. <https://doi.org/10.1177/0145721709343322>
- Oatis-Ballew, R., Hotz, A., Chaney-Taylor, T., & Elizabetta-Ragan, S. R. (2023). “You are Your Best Thing”: The Barriers and Benefits of Yoga for Black Women. *Race and Yoga*, 7(1). <https://doi.org/10.5070/R37156144>
- Olivo, S. A., Macedo, L. G., Gadotti, I. C., Fuentes, J., Stanton, T., & Magee, D. J. (2008). Scales to Assess the Quality of Randomized Controlled Trials: A Systematic Review. *Physical Therapy*, 88(2), 156–175. <https://doi.org/10.2522/ptj.20070147>
- Ostchega, Y., & Nguyen, D. T. (2020). *Hypertension Prevalence Among Adults Aged 18 and Over: United States, 2017–2018*. 364.
- Pagoto, S. L., Schroeder, M. W., Xu, R., Waring, M. E., Groshon, L., Goetz, J. M., Idiong, C., Troy, H., DiVito, J., & Bannor, R. (2022). A Facebook-Delivered Weight Loss Intervention Using Open Enrollment: Randomized Pilot Feasibility Trial. *JMIR Formative Research*, 6(5), e33663. <https://doi.org/10.2196/33663>
- Pescatello, L., Buchner, D., Jakicic, J., Powell, K., Kraus, W., Bloodgood, B., Campbell, W., Dietz, S., Dipietro, L., George, S., Macko, R., McTiernan, A., Pate, R., & Piercy, K. (2019). Physical Activity to Prevent and Treat Hypertension: A Systematic Review. *Medicine and Science in Sports and Exercise*, 51, 1314–1323. <https://doi.org/10.1249/MSS.0000000000001943>
- Pullen, P. R., Nagamia, S. H., Mehta, P. K., Thompson, W. R., Benardot, D., Hammoud, R., Parrott, J. M., Sola, S., & Khan, B. V. (2008). Effects of Yoga on Inflammation and Exercise Capacity in Patients With Chronic Heart Failure. *Journal of Cardiac Failure*, 14(5), 407–413. <https://doi.org/10.1016/j.cardfail.2007.12.007>
- Schoenthaler, A. M., Lancaster, K. J., Chaplin, W., Butler, M., Forsyth, J., & Ogedegbe, G. (2018). Cluster randomized clinical trial of FAITH (Faith-Based Approaches in the Treatment of Hypertension) in blacks: Main trial results. *Circulation: Cardiovascular Quality and Outcomes*, 11(10), e004691. <https://doi.org/10.1161/CIRCOUTCOMES.118.004691>

- Sfendla, A., & Hadrya, F.** (2020). Factors associated with psychological distress and physical activity during the COVID-19 pandemic. *Health Security*, 18(6), 444–453. <https://doi.org/10.1089/hs.2020.0062>
- Shea, B. J., Reeves, B. C., Wells, G., Thuku, M., Hamel, C., Moran, J., Moher, D., Tugwell, P., Welch, V., Kristjansson, E., & Henry, D. A.** (2017). AMSTAR 2: A critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both. *BMJ*, 358, j4008. <https://doi.org/10.1136/bmj.j4008>
- Spadola, C. E., Rottapel, R., Khandpur, N., Kontos, E., Bertisch, S. M., Johnson, D. A., Quante, M., Khalsa, S. B. S., Saper, R. B., & Redline, S.** (2017). Enhancing yoga participation: A qualitative investigation of barriers and facilitators to yoga among predominantly racial/ethnic minority, low-income adults. *Complementary Therapies in Clinical Practice*, 29, 97–104. <https://doi.org/10.1016/j.ctcp.2017.09.001>
- Sun, S., Goldberg, S. B., Loucks, E. B., & Brewer, J. A.** (2022). Mindfulness-based interventions among people of color: A systematic review and meta-analysis. *Psychotherapy Research*, 32(3), 277–290. <https://doi.org/10.1080/10503307.2021.1937369>
- Tenfelde, S. M., Hatchett, L., & Saban, K. L.** (2018). “Maybe black girls do yoga”: A focus group study with predominantly low-income African-American women. *Complementary Therapies in Medicine*, 40, 230–235. <https://doi.org/10.1016/j.ctim.2017.11.017>
- Teut, M., Roesner, E. J., Ortiz, M., Reese, F., Binting, S., Roll, S., Fischer, H. F., Michalsen, A., Willich, S. N., & Brinkhaus, B.** (2013). Mindful Walking in Psychologically Distressed Individuals: A Randomized Controlled Trial. *Evidence-Based Complementary and Alternative Medicine*, 2013, e489856. <https://doi.org/10.1155/2013/489856>
- Thomas, V. G., Gaston, M. H., Porter, G. K., & Anderson, A.** (2016). Prime Time Sister Circles® II: Evaluating a Culturally Relevant Intervention to Decrease Psychological and Physical Risk Factors for Chronic Disease in Mid-Life African American Women. *Journal of the National Medical Association*, 108(1), 6–18. <https://doi.org/10.1016/j.jnma.2015.12.001>
- Tsao, C. W., Aday, A. W., Almarazooq, Z. I., Alonso, A., Beaton, A. Z., Bittencourt, M. S., Boehme, A. K., Buxton, A. E., Carson, A. P., Commodore-Mensah, Y., Elkind, M. S. V., Evenson, K. R., Eze-Nliam, C., Ferguson, J. F., Generoso, G., Ho, J. E., Kalani, R., Khan, S. S., Kissela, B. M., ... null, null.** (2022). Heart Disease and Stroke Statistics—2022 Update: A Report From the American Heart Association. *Circulation*, 145(8), e153–e639. <https://doi.org/10.1161/CIR.0000000000001052>
- U.S. Department of Health and Human Services.** (2018). *Physical Activity Guidelines for Americans*, 2nd edition. Department of Health and Human Services. https://health.gov/sites/default/files/2019-09/Physical_Activity_Guidelines_2nd_edition.pdf
- Waring, M. E., Moore Simas, T. A., Oleski, J., Xiao, R. S., Mulcahy, J. A., May, C. N., & Pagoto, S. L.** (2018). Feasibility and Acceptability of Delivering a Postpartum Weight Loss Intervention via Facebook: A Pilot Study. *Journal of Nutrition Education and Behavior*, 50(1), 70–74.e1. <https://doi.org/10.1016/j.jneb.2017.09.025>
- Yang, C.-H., & Conroy, D. E.** (2020). Mindfulness and physical activity: A systematic review and hierarchical model of mindfulness. *International Journal of Sport and Exercise Psychology*, 18(6), 794–817. <https://doi.org/10.1080/1612197X.2019.1611901>

TO CITE THIS ARTICLE:

Kalinowski, J., Anderson, R., Uzoigwe, N., Chagomerana, C., Loucks, E. B., Pagoto, S. L., Newton, R. L., Mama, S. K., & Johnson, B. T. (2025). Mind Body Physical Activity to Reduce Blood Pressure in Black Women: A Systematic Review of Feasibility Evidence. *Physical Activity and Health*, 9(1), pp. 251–263. DOI: <https://doi.org/10.5334/paah.435>

Submitted: 28 January 2025

Accepted: 29 July 2025

Published: 14 October 2025

COPYRIGHT:

© 2025 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See <http://creativecommons.org/licenses/by/4.0/>.

Physical Activity and Health is a peer-reviewed open access journal published by Ubiquity Press.