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FULL-LENGTH ARTICLES

Co-Developing a Culturally Tailored Dietary Intervention for ADRD Risk Reduction Using a Community-Based Research Approach: The MIND+SOUL Program

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Alzheimer's disease and related dementias (ADRD) disproportionately impact older Black American adults, with diet-related cardiometabolic conditions contributing to increased risk. Using a community-based research approach, we co-developed the MIND+SOUL intervention to promote culturally tailored dietary modifications that align with traditional food practices and faith-based values. We built early partnerships with trusted community leaders and organizations to build relevance and trust. Focus groups and validated surveys explored dietary behaviors, food security, and barriers to healthy eating. Community partners guided the development of nutrition education, culturally adapted meal planning, and strategies for spiritual engagement. Feedback was continuously incorporated through shared decision-making, regular planning sessions, and co-led activities. This process highlights how a community-based research approach can adequately guide the design of a culturally tailored intervention that incorporates community values and specific needs. Preliminary findings suggest high engagement and improved dietary intake, including increased consumption of brain-healthy foods. Barriers such as affordability and food access emphasize the need for continued community support. MIND+SOUL demonstrates how participatory methods can be used to develop culturally relevant dietary interventions that support ADRD risk reduction in older Black American adults.

Alzheimer's disease and related dementias (ADRD) have strong impacts on the person living with ADRD, their family and social network, and greater society. ADRD is one of the top causes of death and disability in the United States (U.S.) (Alzheimer's Association, 2023). Black Americans are disproportionately impacted by ADRD, with their risk being two to three times higher compared to non-Latino White Americans (Alzheimer's Association, 2023; Hudomiet et al., 2022). This increased risk is driven by a combination of vascular and social determinants of health factors. Black Americans experience a higher prevalence of cardiovascular and metabolic conditions (i.e. hypertension, type 2 diabetes, obesity) which are strongly associated with ADRD risk (Barnes & Bennett, 2014; Gottesman et al.,

2017). In addition, multiple systemic factors, including historical and ongoing racial inequities in healthcare access, environmental exposures (i.e. air pollutants), economic disparities, and chronic stress from structural racism contribute to ADRD risk (Adkins-Jackson et al., 2023; Gary et al., 2022; Hill et al., 2015; Hinton et al., 2024; Peters, 2023. Given these multifactorial contributing factors to ADRD, targeted interventions that address both biological and social determinants of health are needed.

Dietary interventions may facilitate a reduction in ADRD risk among Black Americans, particularly by addressing modifiable risk factors that contribute to disparities in health outcomes, mortality, and healthcare costs. Currently, there is no cure for ADRD; however, growing evidence suggests that non-pharmaceutical interventions, including lifestyle and behavioral modifications, may reduce ADRD risk and improve brain health outcomes (Morris et al., 2015; Ramamoorthy et al., 2015; Shaw et al., 2022). Among these interventions, dietary modification has emerged as a particularly promising strategy, given its impact on metabolic and cardiovascular health. Black Americans experience a disproportionately higher burden of cardiovascular and metabolic conditions, including hypertension, type 2 diabetes, and obesity, which are known to increase the risk of ADRD (Blumenthal et al., 2020; Hill et al., 2015). These conditions are influenced not only by biological predispositions but also by social determinants of health, such as limited access to affordable and nutritious foods, food deserts, and dietary patterns shaped by economic and structural barriers (Portela-Parra & Leung, 2019; Qian et al., 2023). The cumulative effects of these factors contribute to health inequities that place Black Americans at greater risk for cognitive decline. Given that diet is one of the most influential and modifiable risk factors for ADRD, culturally adapted dietary interventions offer a promising strategy to mitigate ADRD risk factors by addressing both biological and structural barriers to healthy eating while promoting long-term adherence.

Previous research has demonstrated that a higher adherence to the Mediterranean diet intervention is associated with lower risk of ADRD (Feng et al., 2024; Shannon et al., 2023). Additionally, 6 months of the Dietary Approaches to Stop Hypertension (DASH) diet combined with aerobic exercise has shown to enhance executive functioning and mitigate ADRD severity in cognitively intact older adults with cardiovascular risk factors compared to controls (Blumenthal et al., 2020). Furthermore, high adherence to the Mediterranean-DASH Intervention for Neurodegenerative Delay (MIND) diet; a combination of the Mediterranean and DASH has been associated with significant cognitive benefits, with improvements in individual cognitive domains ranging from 30% to 78% (Morris et al., 2015).

Despite these promising findings, existing dietary interventions are often not culturally tailored to Black Americans, which limits their effectiveness and long-term sustainability. While standardized dietary interventions show promise for optimal outcomes in aging, they often fail to account for the

cultural food preferences, traditions, and structural barriers that influence dietary behaviors in Black American communities (Airhihenbuwa et al., 1996; Richards Adams et al., 2019). Additionally, Black Americans remain underrepresented in clinical trial research, making up only about 5% of participants in ADRD-related studies, which limits the generalizability and applicability of findings to this diverse group (Hughes et al., 2015).

Also, multiple systemic barriers contribute to low adherence to existing dietary interventions among Black Americans. For example, perceived lack of social support, structural contexts (e.g. high costs of healthy foods and reduced access to healthy and diverse food options), and lack of cultural relevance contribute to low adherence and acceptability of existing dietary interventions that reduce ADRD risk (Shaw et al., 2023). Therefore, there is a need to develop dietary interventions that not only support optimal brain health in aging but are also culturally tailored to the lived experiences of Black Americans. Regarding ongoing inequities, culturally tailored diet interventions can offer meaningful opportunities to support brain health in ways that honor cultural identity, build upon community resilience, and promote accessibility by aligning with the lived experiences and values within Black communities.

The aim of the current manuscript is to describe the co-development process of the MIND+SOUL dietary intervention, specifically designed to reduce ADRD risk in older Black American adults. This intervention adapts the principles of the MIND diet to incorporate traditional soul food using a community based research approach (Arctic Institute of Community-Based Research, n.d.; Roche, 2008; Strand et al., 2003). Previous research shows that modifying traditional Black American recipes to align with nutritional guidelines, rather than removing these foods entirely, can be more effective in promoting adherence and improving health outcomes (Rankins et al., 2007). For example, culturally adapted diets have led to reductions in body mass index, hemoglobin A1C levels, body weight, and waist circumference among adult Black Americans (Anderson-Loftin et al., 2005; Ard et al., 2010). It is also important to note that traditional soul food includes nutrient-rich components, such as fruits and vegetables (e.g. collard greens, sweet potatoes, and okra), which are associated with improved cardiovascular markers and slower cognitive decline (Jefferson et al., 2010; Morris et al., 2018; Nilsson et al., 2017). By amplifying the inherent protective components of a traditional Black American diet and returning to healthier roots, the intervention leverages cultural familiarity to promote adherence and to optimize health outcomes.

COMMUNITY BASED RESEARCH APPROACH

Community-based research (CBR) is a collaborative participatory approach that equally involves community members and researchers at every stage of the research process (Roche, 2008). The MIND+SOUL intervention was developed using CBR principles to ensure that the intervention was scientifically rigorous while being grounded in the lived experiences of older

Black American adults. By aligning research efforts with community priorities, CBR enhances intervention acceptability and long-term sustainability.

CBR is founded on six core principles: participatory, cooperative, co-learning, capacity-building, empowering, and action-oriented (Arctic Institute of Community-Based Research, n.d.; Kwon et al., 2018). These principles guided each stage of the MIND+SOUL intervention. For example, participatory principles were applied by engaging community members in focus groups to shape the intervention design, cooperative efforts involved partnerships with Black American serving local organizations to address logistical challenges like food delivery, and action-oriented strategies ensured that the intervention provided tangible resources, such as weekly culturally aligned groceries to support dietary adherence.

This method emphasizes reciprocal partnerships, ensuring that community perspectives guided the research process. The MIND+SOUL intervention incorporated several data collection methods including focus groups to identify barriers to healthy eating, surveys to understand dietary behaviors and practices, and iterative feedback sessions to refine the intervention, which ensured that the intervention was both practical and responsive to participants' lived experiences.

CBR has been effectively applied in development and delivery of dietary interventions among older Black American adults demonstrating its value in improving health outcomes. The Men on the Move: Growing Communities program, which adapted the DASH diet for rural Black communities, resulted in increased fruit and vegetable intake and reductions in obesity and hypertension (Baker et al., 2016). Similarly, a CBR-driven intervention for urban Black American adults with hypertension led to greater consumption of potassium-rich foods and fresh produce (Miller et al., 2016).

In addition to dietary interventions, CBR has addressed broader health disparities impacting Black American communities. The FAITH! App Pilot Study improved cardiovascular health behaviors through a mobile health intervention (Brewer et al., 2019), while the REACH Detroit Partnership demonstrated reductions in hemoglobin A1C levels through a diabetes lifestyle intervention (Two Feathers et al., 2005). Similarly, in another CBR driven initiative, an HIV testing intervention tailored for Black American churches led to a 2.2-fold increase in testing rates among participants (Berkley-Patton et al., 2016).

By incorporating CBR principles, the MIND+SOUL intervention builds upon this foundation to promote sustainable dietary behavior change. Through community partnerships, community engagement, and culturally tailored strategies, CBR ensures that the MIND+SOUL intervention is not only evidence-based but also deeply integrated into the community it serves.

Community partners were engaged throughout the development of the MIND+SOUL intervention, ensuring that the perspectives of community leaders informed its design and implementation. They provided input on

Table 1: Community Partner Engagement Across CBR Phases in the MIND+SOUL Intervention

CBR Phase and Timeline	Community Partners Activities
Early Engagement (18 months)	- Established relationships with Black American-serving organizations, churches, and senior centers - Hosted preliminary meetings with community leaders and faith-based organizations - Aligned intervention goals with community needs - Built trust through community events and discussions
Needs Assessment (12 months)	- Identified key dietary barriers (affordability, cultural preferences, accessibility) - Helped prioritize community health concerns related to ADRD prevention - Provided insights on culturally relevant dietary adaptations
Design (Months 7-12 months)	- Co-developed culturally tailored health education - Provided recommendations for faith-based adaptations and culturally aligned intervention messaging - Reviewed and refined outreach materials (i.e. study flyers and social media announcements)
Implementation (Months 24 months)	- Assisted with participant recruitment and promoted engagement within trusted community spaces
Evaluation (Months 6 months)	- Provided feedback on material effectiveness and participant experience - Recommended adaptations to improve accessibility, cultural relevance, and long-term sustainability

barriers to healthy eating, culturally relevant dietary adaptations, and strategies to improve participant engagement. Their contributions were gathered through informal discussions and direct feedback on intervention materials (Table 1).

In alignment with this community-driven approach, the recruitment process for the MIND+SOUL was designed to actively engage older Black American adults at risk for ADRD by leveraging trusted community partnerships and culturally tailored outreach strategies. This ensured that participant selection reflected the lived experiences and needs of the community while supporting sustained engagement in the intervention.

PARTICIPANT RECRUITMENT, ELIGIBILITY CRITERIA, AND COMMUNITY PARTER ENGAGEMENT

Participants were recruited through a combination of community outreach efforts, including partnerships with Black American-serving organizations, local churches, and senior centers. Given the importance of trust in research participation, community partner engagement played a significant role in shaping the recruitment process for the MIND+SOUL intervention. Initial outreach with Black American serving community leaders and faith-based organizations began one year prior to formal recruitment to establish relationships and ensure the intervention's relevance to the community. The study team conducted meetings with community leaders and attended community events to introduce the MIND+SOUL intervention and to build trust with potential participants. These early efforts fostered meaningful collaborations that strengthened participant engagement.

Targeted recruitment leveraged existing relationships with trusted community leaders to further enhance engagement and trust. Community partners provided input on effective outreach methods, which ensured that recruitment materials were culturally relevant and accessible. Specifically, input from community partners directly informed the design of culturally

tailored study flyers and social media announcements, which were distributed in trusted community spaces. Additionally, community partners actively contributed to recruitment efforts by advocating for the study within their respected networks, helping bridge the gap between research and community in a way that fostered trust and encouraged participation.

Eligible participants were Black American adults aged 55 and older who had at least one cardiovascular or metabolic risk factor (i.e. hypertension, type 2 diabetes, or obesity). Exclusion criteria included individuals with a diagnosed neurodegenerative disease, severe dietary restrictions that would prevent adherence to the intervention, or medical conditions that would interfere with participation in a dietary intervention program. Participants were screened via phone interviews followed by an eligibility screening process that included medical history self-report and baseline health assessments to ensure they met the inclusion criteria prior to enrollment.

By integrating community partnership engagement throughout the recruitment process, the study ensured that outreach efforts were culturally relevant, community-driven, and built on existing trusted networks. This recruitment strategy reflects the broader CBR approach which guided the development of the MIND+SOUL intervention, centering on shared decision making and honoring the community's perspectives throughout each phase of the research process. This approach not only facilitated recruitment, but also reinforced the study team's commitment to meaningful collaboration with the communities it aimed to serve.

HEALTH ASSESSMENT PROFESS

The health assessment process for the MIND+SOUL intervention involved a structured, community-engaged approach to better understand current dietary practices, barriers to healthy eating, and specific needs of older Black American adults (Shaw et al., 2023). The process was designed to ensure that the intervention was culturally relevant and responsive to the community's needs. This mixed-methods approach was selected to leverage quantitative data for measurable patterns and barriers, complemented by qualitative insights into cultural norms and lived experiences, ensuring the intervention was both evidence-based and culturally relevant.

Quantitative Measures

Quantitative surveys were used to collect structured, data on dietary habits, health conditions, and barriers to healthy eating. Four validated instruments were administered to ensure a comprehensive understanding of participants' dietary behaviors and health challenges. The Dietary Screener Questionnaire (DSQ) was selected due to its established validity in assessing the frequency of consumption of foods critical to brain health, offering insights into dietary intake patterns (Thompson et al., 2017). Given that the MIND+SOUL interventions focus on dietary patterns to support brain health, this measure provided a standardized method for quantifying participants' dietary intake to inform targeted strategies for the intervention. The Health and Lifestyle

Questionnaire collected information about participants' health conditions, physical activity levels, and lifestyle factors influencing eating behaviors, providing context for dietary choices. This measure was selected because it was able to capture broader context of participants' health and well-being, allowing for a more nuanced understanding of dietary behaviors. The Barriers to Healthy Eating Survey was included to explore challenges such as cost, accessibility, and knowledge gaps that hinder healthy eating practices (Sun et al., 2019). This measure was essential to developing practical strategies for the MIND+SOUL intervention that addressed obstacles determined by participants. Lastly, the Food Security Questionnaire examined the availability and adequacy of food resources within participants' households, capturing structural and environmental influences on diet (Economic Research Service, 2025). Together, these measures provided robust data that captured the multifaceted determinants of dietary behavior and informed the MIND+SOUL intervention's design.

Qualitative Measures

Qualitative focus groups were an important methodological component in the development of the MIND+SOUL intervention. Specifically, focus groups provided an in-depth nuanced understanding of participants' attitudes, beliefs, and lived experiences related to dietary behavior and health. It is important to note that incorporating qualitative methodology is helpful when exploring phenomena that are complex, under-studied, or culturally specific, as they allow for rich, participant-centered perspectives to emerge (Creswell & Creswell, 2017; Creswell & Poth, 2017). In this context, focus groups enabled the research team to identify both culturally and spiritually rooted data that may not have been identified through quantitative measures alone.

Insights from the focus group discussion were crucial in ensuring that the intervention was culturally relevant and responsive to the lived experiences of the participants. The focus groups also illuminated that spirituality played a meaningful role in shaping health behaviors and perspectives on dietary change. Specifically, participants described how faith and spiritual practices were integral to their daily lives, suggesting that integrating Christian faith-based components, such as health devotionals or scriptures, could enhance the relevance and impact of the adapted dietary intervention (Shaw et al., 2023). These data underscored the need for a holistic approach that not only addressed physical and cultural aspects of dietary behavior but also acknowledged the spiritual values that are deeply rooted in the community. The focus groups provided vital qualitative insights into the relationship between health, culture, and spirituality, ensuring that the MIND+SOUL intervention was not only based on scientific evidence, but also culturally meaningful and spiritually relevant to the community it was designed to support.

Integrating Quantitative and Qualitative Data

Integrating quantitative and qualitative data was essential for creating a strong foundation for the MIND+SOUL intervention. While the surveys identified key patterns and barriers, the focus groups provided context to explain the reasons behind these findings. For example, survey results indicating low fruit and vegetable intake were enriched by focus group discussions that associated these patterns to cultural preferences and challenges related to affordability and accessibility (Shaw et al., 2023). Additionally, participants emphasized the importance of Christian faith-based support and community engagement in supporting long-term dietary changes, which highlights the need for culturally tailored intervention components. Full details regarding participant feedback from the development phase can be found in Shaw et al., 2023. By combining these approaches, the health assessment process ensured the intervention was both scientifically rigorous and culturally aligned with the community in which the MIND+SOUL intervention was aimed to serve (Creswell & Clark, 2017; Creswell et al., 2007).

DESIGN: THE MIND+SOUL INTERVENTION

Step 1: Needs Assessment and Community Engagement

The development of the MIND+SOUL intervention was informed by both community input and evidence-based best practices for developing culturally tailored health promotion interventions (Shaw et al., 2023). The intervention was designed to prioritize culturally relevant dietary modifications, ensuring that the MIND diet was adapted to incorporate traditional soul food while retaining the brain-health benefits of the original MIND dietary model. A core focus was to highlight how brain-healthy diets could help reduce cognitive decline, particularly in reducing ADRD risk among this disproportionally impacted population. Through focus group discussions guided by the Health Belief Model (Rosenstock, 1990) and quantitative surveys, community members identified key barriers to healthy eating, such as the high cost and limited access to nutritious foods (Shaw et al., 2023). These insights guided the intervention design, ensuring it addressed both the nutritional and cultural needs of the community. By tackling these barriers, the MIND+SOUL program aimed to create a sustainable and accessible pathway to better brain health while honoring cultural traditions.

Step 2: Framework Selection – The COM-B Model

We utilized a multi-faceted approach to increase reach, acceptability, and impact when designing the MIND+SOUL intervention. Specifically, the community-engaged model COM-B model (Capability, Opportunity, and Motivation) was employed, where community members and community partners actively participated in both the design and delivery phases of the MIND+SOUL intervention (Michie et al., 2011). The COM-B model was

chosen due to its flexibility and effectiveness in addressing behavior change through culturally relevant and adaptable strategies. It allowed us to focus on three key areas: building capability by offering hands-on cooking classes where participants learned to prepare culturally familiar foods in brain-healthy ways; creating opportunities by providing consistent access to groceries that adhered to the MIND+SOUL diet, ensuring participants could easily implement the skills they acquired; and fostering motivation by integrating culturally resonant education and support, such as Christian faith-based components including guided scriptures and health devotionals, that aligned with participants' spiritual values and increased community buy-in and engagement. This comprehensive approach ensured that the intervention was tailored to the specific needs and cultural context of the participants, further increasing buy-in, and promoting long-term adherence and behavior change.

Step 3: Intervention Delivery Methods

To enhance participation and engagement the intervention was designed to employ several delivery methods (e.g. in person, virtual, printed materials) to allow participants to access the intervention in a way that was most convenient as deemed by the survey and focus group results. Specifically, in-person health education and skill-building cooking classes were built into the design of the intervention to provide participants with hands-on learning and social support. Additionally, one-on-one virtual health coaching sessions were designed as a personalized mode of delivery. Printed materials, such as recipe cards and brochures, were developed to be distributed at health education and skill building cooking classes to allow participants to learn and apply the intervention at their own pace.

Step 4: Cultural and Faith-Based Integration

Cultural and spiritual elements were woven throughout the intervention. The program emphasized the health benefits of traditional soul food while providing modifications to promote long-term wellness. Christian faith-based devotionals connected dietary habits to participants' spiritual values, reinforcing the importance of healthy eating as part of honoring the body. These cultural and faith-driven elements created a holistic approach that resonated deeply with the Black American community.

Step 5: Addressing Sustainability and Scalability

Partnerships with local organizations played a critical role in the success of the MIND+SOUL intervention, ensuring cultural alignment and logistical support. Collaborations with Black American-serving organizations, such as churches and community centers, facilitated participant recruitment and retention by leveraging trusted relationships within the community. These partnerships also addressed logistical challenges, such as food delivery, ensuring participants consistently received culturally relevant groceries each week that aligned with the intervention's guidelines. Local grocery stores were engaged to source affordable, culturally aligned foods, further supporting the

Table 2. Application of the Social-Ecological Model in the MIND+SOUL Dietary Intervention

Level	Description	Intervention Component
Intrapersonal	Individual behavior and knowledge related to dietary habits.	- Skill-building cooking classes - Nutrition education sessions
Interpersonal	Social support and social norms that influence behavior.	- Health coaching - Faith-based support materials
Organizational	Engagement with local organizations to support and enhance the intervention.	- Collaboration with community-based organizations that serve Black Americans
Community	Addressing broader community-level barriers to healthy eating.	- Weekly grocery provision - Partnerships with local grocery stores

program's accessibility. Additionally, Black American organizational partners provided valuable feedback to ensure the intervention remained relevant and effective for the community, helping to align messaging, content, and delivery methods with cultural and spiritual values. This collaboration fostered trust, enhanced program engagement, and created a foundation for long-term sustainability.

Step 6: Social-Ecological Integration and Cultural Alignment

The culturally tailored MIND+SOUL dietary intervention was designed to address several levels of influence as it relates to dietary behaviors among older Black American adults. Specifically, the intervention is rooted in the Social Ecological Model and culturally relevant strategies are integrated throughout all levels of the model (intrapersonal, interpersonal, community/organizational, and policy) to enhance sustainability of dietary behavioral change (Fleury & Lee, 2006; Robinson, 2008). By addressing multiple levels of influence (Table 2), the intervention is designed to be both culturally relevant and effective in promoting lasting health improvements. This comprehensive approach reflects the scientific rigor and community-focused foundation of the MIND+SOUL intervention.

Intrapersonal Level

At the intrapersonal level, the MIND+SOUL focuses on individual behavioral change through self-efficacy and self-regulatory skills. For self-efficacy, the MIND+SOUL focuses on enhancing confidence in participants' ability to make consistent healthy dietary choices. Specifically, health affirmations are designed to be integrated into the daily routines for participants to reinforce positive thinking and motivation. Some of the health affirmations in the MIND+SOUL include "I feel amazing when I eat well" and "I deserve to feel amazing when I nourish my body" which were designed to reinforce participants belief in their capacity to develop and sustain changes while honoring cultural identity. For self-regulatory skills the MIND+SOUL focused on goal setting in which participants developed culturally relevant dietary goals. The purpose of these goals was to encourage the consumption of more healthy food within traditional foods consumed by older Black American adults (e.g. soul food) to promote healthier eating practices without losing culture.

Interpersonal Level

At the interpersonal level, the MIND+SOUL intervention integrates culturally sound social support and cultural social norms that encourage dietary behavioral change using health coaching and faith-based social practices. Participants had personalized one-on-one health sessions with coaches who identified as Black American and were culturally competent in addressing the unique needs of the community. These coaches provided culturally aligned support, helping participants navigate dietary obstacles while incorporating traditional food preferences and practices. Their continuous support in addressing barriers to healthy eating and reinforcing cultural identity created a trusting and empowering environment for participants to thrive. Christian faith-based materials further promoted healthy habits, using devotionals that emphasized the spiritual importance of caring for one's body through healthy eating and establishing biblical boundaries around food and self-care. These faith-driven messages provided a strong cultural and spiritual foundation, encouraging participants to embrace dietary changes as an extension of their faith practice.

Community Level

At the community level, the MIND+SOUL intervention addresses barriers to healthy eating including food accessibility, availability, and affordability. A key component includes grocery support to address food insecurity in which participants receive weekly groceries for the entire duration of the 12-week intervention. The groceries consist of culturally relevant fruits, vegetables, whole grains, and protein. By providing groceries directly, the MIND+SOUL intervention enhances access to healthy foods and address availability and affordability barriers by providing consistent access to healthy foods. By removing these barriers, the MIND+SOUL intervention made culturally relevant healthier food options more accessible, fostering long-term changes in dietary habits and addressing the cost and accessibility challenges through weekly grocery provisions over 12 weeks. The skill-building cooking classes complement the grocery provision through educating participants on how to maximize nutritional value of culturally salient foods while taking into account food accessibility, availability and affordability. Specifically, the MIND+SOUL provided education on how to use accessible, affordable ingredients and navigate food availability challenges by offering flexible, budget-friendly recipes.

Organizational Level

At the organizational level the MIND+SOUL intervention collaborated with predominately serving Black American organizations to enhance the success of the intervention and to ensure cultural alignment. The partnerships served as a tool for recruitment and retention of older Black American adults, ensuring that the intervention components were tailored to meet the specific needs of older Black American adults. Additionally,

partnerships ensured that the delivery of the dietary intervention was culturally aligned and addressed the unique health challenges faced by older Black American adults. Moreover, this collaboration helped to build trust with the community and ensured that participants remained engaged throughout the intervention.

Policy Level

While policy is a component of the Social Ecological Model, the MIND+SOUL intervention focused on individual, interpersonal, community, and organizational influences to drive dietary change. The intervention prioritized culturally tailored education, social support, and improved food access through community engagement. Although policies related to food pricing, subsidies, and nutrition assistance impact dietary behaviors, addressing these broader structural changes was beyond the scope of this intervention.

It is important to note that research has identified limitations of focusing solely on individual behavior. For example, Daly et al. (2024) suggests that structural components including socioeconomic inequity and environment influence brain health and need to be addressed using a systematic, policy level approach. Furthermore, King et al. (2024) identified gaps in service delivery and inequitable access as barriers in dementia care, which further emphasizes the need for policy reform to improve support. In alignment with these studies, the National Institute on Aging emphasizes the importance of addressing disparities in older populations requires a multilevel framework that considers environmental, sociocultural, behavioral, and biological factors (Hill et al., 2015). Therefore, future work should examine how policy initiative can support the MIND+SOUL intervention to enhance accessibility and adherence among older Black American adults.

DISCUSSION

The development of the MIND+SOUL intervention was rooted in the CBR approach to engage Black community leaders and community members in addressing ADRD risk. The MIND+SOUL intervention was shaped through the collaborative input of Black American serving community leaders and members, using a culturally tailored model designed to promote healthy dietary habits. This intervention aligns with broader public health initiatives aimed at reducing racial disparities in ADRD prevention by targeting modifiable risk factors such as diet-related metabolic conditions (U.S. Department of Health and Human Services, 2022; Yang et al., 2022). Given the disproportionate impact of ADRD among older Black Americans (Alzheimer's Association, 2023; Hudomiet et al., 2022), culturally tailored dietary interventions such as the MIND+SOUL offer a suitable strategy for enhancing brain health equity. By incorporating the MIND+SOUL intervention strategies within trusted community structures, this model supports long-term behavioral change that could reduce healthcare disparities and improve overall health outcomes at the population level.

The MIND+SOUL program embraced key principles of CBR, including participatory and cooperative engagement with community leaders. The intervention was developed through a co-learning process between researchers and the community, emphasizing empowerment and capacity-building within predominately Black American serving organizations. This collaborative effort ensured that community members played an active role in designing and implementing the intervention, resulting in a culturally competent intervention program that addressed barriers to healthy eating, such as food access and affordability. The positive results of this approach represent the importance of engaging community members early in public health interventions, ensuring that strategies are both evidence-based and culturally relevant to the communities being served.

The lessons learned from the MIND+SOUL intervention emphasize the importance of culturally resonant approaches in addressing chronic disease prevention. This intervention model provides a public health framework for implementing nutrition-based chronic disease interventions that are both accessible and culturally appropriate. Interventions like MIND+SOUL could be scaled nationally through partnerships with faith-based organizations, federally qualified health centers, and public health initiatives to reach more at-risk populations. Additionally, incorporating cultural adaptation into dietary interventions may improve adherence rates, a key factor in the long-term adaptation of dietary programs aimed at reducing ADRD and related chronic diseases. Given that Black Americans remain underrepresented in research (Versavel et al., 2023), the MIND+SOUL intervention contributes to closing the gap in health disparities research by offering a model for inclusive, community-driven dietary programs that resonate with historically underserved populations.

Building on this research, future work for the MIND+SOUL dietary intervention should prioritize piloting the intervention to refine its components and then testing its efficacy in a larger-scale study. Ensuring the intervention's accessibility, comfortability, and efficacy will be key objectives. Expanding community partnerships to enhance both reach and sustainability will also remain a central focus. Incorporating CBR principles could involve developing stronger relationships with local organizations (e.g., grocery stores and food providers) to ensure participants have ongoing access to affordable, healthy food options, reinforcing the connection between community-driven strategies and broader public health policy initiatives.

This model complements the Centers for Disease Control and Prevention (CDC) Healthy Brain Initiative (HBI) and the Building Our Largest Dementia (BOLD) Infrastructure for Alzheimer's Act, which emphasizes equitable risk reduction, early detection, and community-based support (Centers for Disease Control and Prevention, n.d.; Centers for Disease and Prevention et al., 2023). Specifically, the BOLD initiative supports public health efforts to build infrastructure for cognitive health promotion at the state level (Centers for Disease and Prevention et al., 2023). By integrating

MIND+SOUL strategies with the CDC's HBI's goals such as fostering community-clinical linkages, promoting culturally responsive messaging, and enhancing data-informed policy, this intervention can serve as a scalable model that bridges individual behavior change with broader structural and policy change.

To broaden the impact, future efforts should focus on scaling the intervention to diverse Black communities across a wider geographical area, tailoring the program to meet the unique cultural needs of each group through active collaboration with community leaders and public health professionals. Integrating MIND+SOUL into existing public health frameworks, such as the CDC's Healthy Brain Initiative and state-level ADRD prevention programs, could provide sustainable funding mechanisms and facilitate widespread adoption (Centers for Disease Control and Prevention, 2023). Furthermore, future work should explore policy advocacy to address systemic barriers to healthy dietary consumption, including nutrition assistance programs, community-based food distribution models, and Medicaid/Medicare reimbursement for dietary counseling. Ensuring that culturally tailored dietary interventions like MIND+SOUL are integrated into broader chronic disease prevention efforts will be critical for advancing health equity.

Building and sustaining community partnerships was a foundational element of this process. Specifically, cultivating trust first, maintaining open and consistent communication, and ensuring that the community perspectives were directly incorporated into the intervention design and implementation phase were key strategies used. By leveraging existing relationships with trusted community partners, aligning the program with the community's specific needs, and incorporating structured feedback mechanisms fostered collaboration and program relevance. Future work should include these strategies to enhance engagement, scalability, and sustainability.

One limitation of the MIND+SOUL intervention was the reliance on a single community with southern Black American roots for input during the health assessment process, which limits the generalizability of the intervention to the broader and diverse Black American and African American populations in the U.S. The small and non-representative sample highlights the need for future iterations of the intervention to incorporate input from a wider range of Black American and African American communities to address regional, cultural, and socioeconomic differences. However, it is worth noting that the shared focus on faith and food traditions may provide a unifying foundation across many Black communities, supporting the broader applicability of the intervention. Additionally, logistical constraints in food delivery and community resources pose challenges that could affect the sustainability of dietary behavior changes after the intervention concludes. Despite these limitations, the lessons learned from working with this community provided valuable insights into the challenges and opportunities

of implementing culturally tailored dietary interventions. These insights serve as a foundation for refining and expanding the MIND+SOUL intervention to better serve diverse communities and ensure long-term sustainability.

CONCLUSION

The MIND+SOUL intervention illustrates the power of co-developing culturally tailored dietary programs in partnership with Black American communities. The CBR approach facilitated active community participation, ensuring that the program met participants' lived experiences and health goals. Future efforts should focus on expanding these partnerships and scaling the intervention to reach diverse Black communities across various regions, emphasizing sustainable access to healthy foods. Continued use of CBR principles will be essential for adapting the dietary intervention to different contexts while maintaining its cultural resonance and impact on ADRD risk reduction. Additionally, a greater focus on public health partnerships and policy-driven solutions will be critical in ensuring that culturally tailored dietary interventions become a standard part of ADRD prevention and broader chronic disease management efforts.

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