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Abstract

The 2019 Pew Research Center reports that about 4.6 million people, or 10% of Black people in the United States are immigrants. The African continent has the fastest growing immigration population in the US and since 2000 has led the increase of the Black foreign-born population. Nonetheless, there is limited research on Black African immigrants, and current research aggregates Black populations in the United States under one umbrella term - African American. Physical activity positively impacts health as it improves muscular and cardiovascular function, improve mental health, decreases risks of various cancers and mortality. Women have been found to have lower rates on leisure time physical activity. Black women in the US, which includes Black African immigrant women, have the lowest rates of physical activity.

Disaggregating US-born Black Americans and Black immigrants is necessary as understanding variances in measures influencing physical activity is important to eliminating health disparities.

This study aims to identify sociodemographic and health characteristics associated with physical activity engagement among African-born Black female immigrants aged 18 years and older in the US. It attempts to illuminate a holistic understanding of how the specific characteristics of Black African immigrant women influence patterns of physical activity. It will use an explanatory sequential mixed methods research design where the quantitative data through a questionnaire is collected first, analyzed, and then used to inform the data collection of the qualitative phase which will be done through interviews and focus groups. Participant recruitment for the study will be through a third-party provider, Qualtrics.

The study fills the unexplored gap between the qualitative and quantitative studies by using mixed methods while contributing to scholarship by illuminating the experiences of Black African immigrant women. It also adds to the literature on the intersection of physical activity, race, gender, and migration.

Project Narrative

Context, Goals, and Scope: The global rise of noncommunicable diseases has placed a greater emphasis on promoting physical activity engagement. Increasing the value of sports beyond elite athletes and competitive sports to everyday lay people within their communities is now an integral part of the public health agenda.¹ Physical activity (PA) improves muscular and cardiovascular function, promotes mental wellbeing, and decreases risks of various cancers. It serves as primary, secondary, or tertiary prevention method for several noncommunicable diseases. Physical inactivity has been attributed to an estimated 5.3 million deaths annually due to cardiovascular diseases, diabetes, some cancers² and obesity osteoarthritis.³ WHO reports that 28% or 1.4 billion people aged 18 years and above do not reach the recommended levels of physical activity and women are less active than men,⁴⁻⁶ with 32% of women not achieving the recommended levels in comparison to 23% of males.⁷ In developed countries such as the U.S., levels of inactivity in adults are as high as 36.8%⁸.

Globally women who hold minority status are less active than non-minority women,^{4,5,9} and in the United States Black women have the lowest rates of physical activity in the country.¹⁰ The Office of Management and Budget (OMB) categorizes racial and ethnic populations into five groups.¹¹ One of these groups is Black or African American. Even though there is heterogeneity in the Black population in the US,¹²⁻¹⁴ this is the only category used to capture this diverse population (African Americans, African immigrants, and Afro-Caribbeans). The number of Black immigrants is projected to outpace the US-born Black population and grow by 90% from 2020 to reach 9.5 million by 2060,¹⁵ and since 2000, the fastest growing immigrant population in the US has been from the African continent. There is limited research that focuses on Black African immigrants, including studies on engagement in physical activity.¹⁶

Studies on the Black population and PA engagement have explored Black immigrants in general,¹³ low-income African American women,⁴ obesity and related health behaviors,¹⁷ amongst others. While some studies have explored why Black women do not engage in physical activity (PA) at rates comparable to their white counterparts, few studies explore PA engagement with the goal of obesity mitigation and or weight loss. Most African American women who were motivated to lose weight report that it due to a health-related issue and often a weight-related diagnosis.⁴ Furthermore, even fewer studies explore the experiences of immigrant women with these two dimensions: race and migration. It is crucial to explore differences between, and within diverse groups as this will lead to better targeting of health promotion interventions.¹⁷ Understanding differences in measures that influence PA levels among different racial/ethnic groups is important to eliminating health disparities.¹⁸ Disaggregating US-born Black Americans and Black immigrants is necessary¹⁹ and the racialized component of this immigrant group might also mean that they experience the effects of immigration differently than other non-Black immigrants.²⁰

This study aims to identify sociodemographic and health characteristics associated with PA among African-born Black female immigrants aged 18 years and older, in the US. By illuminating the experiences of Black African immigrant women, this research contributes to the literature on physical activity and specific Black populations. It also contributes to the literature on the intersection of physical activity, race, gender, and migration.

Methodology: Few studies use mixed methods and very few use it to explore PA engagement.⁴ Mixed methods research integrates quantitative and qualitative research techniques to explore and understand research problems.²¹ This project will use an explanatory sequential mixed methods research design where the quantitative data is collected first, analyzed, and then used to

inform the data collection of the qualitative phase (*Appendix 1: Study Procedure Diagram*). The role of the qualitative phase is to provide depth to the results of the quantitative phase, to provide more details to the results, and to also provide context and detail to participants' voices.²² The quantitative phase of this study will use a questionnaire developed with questions centered around sociodemographic, health behaviors, anthropometric measures, PA habits, definitions, neighborhood cohesion, etc. The output will be numeric data. The qualitative phase, the second phase will be semi-structured interviews, individual interviews and focus groups. The study will attempt to answer the following questions in a sequential, integrated manner (*Appendix 2: Explanatory Sequential Design Integration*);

Quantitative Research Questions

1. What are the demographic, socioeconomic, behavioral and health related factors associated with participation in physical activity of Black African female immigrants in the US?
2. Does weight moderate the relationship between demographic, socioeconomic, behavioral and health related factors and physical activity among Black African female immigrants?

Qualitative Research Questions

3. What are Black African female immigrants' attitudes and perceptions of barriers and enablers of engagement in physical activity?
4. How do Black African female immigrants' factor in weight as a reason for participation in physical activity?

Mixed Methods Research Question

5. How can the knowledge that emerges from quantitative and qualitative data be used to understand the connection, if any, that Black African female immigrants see between

physical activity and weight, and subsequently be used to promote a non-weight related approach to physical activity and exercise?

Data analysis priority is given to analyzing the quantitative data. This analysis will be independent, and the results will be used to inform the development questions for the qualitative phase which will not begin until the analysis of the first phase is complete, integration is evidenced by the interview protocol and how it adds, expands, and fills the gaps left by the results from the quantitative data. The analysis and interpretation of the quantitative data will include data transformation of the statistical analysis to ensure the significant relationships between the constructs. These will then be incorporated and developed into interview questions which will inform the qualitative research questions. The discussion section will be used to integrate the data analysis and employ the intramethod analysis. Focusing on the results from both strands, the section will answer the mixed methods research question and include how the data demonstrates a deeper understanding of Black African immigrant women physical activity trends and health and give recommendations on best approaches to promote increased physical activity not centered on weight loss.

Significance and Impact: Studies have established that immigrants consistently have lower participation in physical activity²³⁻²⁷ and ethnic minorities usually report even lower levels of leisure time PA.^{5,28,29} Not recognizing the heterogeneity of the Black population in research can lead to incomplete and ungeneralizable conclusions due to the overshadowing of distinct characteristics.^{13,30} It is crucial to tackle health disparities and to proactively work to understand the health habits of immigrants.³¹ This includes recognizing the heterogeneity of these immigrant groups, understanding their racial, immigrant, and sociodemographic dynamics,¹³ and working to tailor interventions to their specific characteristics and health profiles so that they are

successful.^{13,31,32} Studies have explored PA engagement from a qualitative perspective through interviews and focus groups,^{28,33} or quantitatively through cross-sectional surveys.^{13,34} Very few studies have used mixed methods.²⁷ This study's use of a combination of qualitative and quantitative study would offer a more complete understanding of how Black African immigrant women's characteristics influence how they engage in physical activity and the goal to increase participation for better health outcomes. This study will attempt to illuminate a holistic understanding of how the specific characteristics of Black African immigrant women influence patterns of physical activity. A combination of qualitative and quantitative study would offer a more complete understanding of their PA engagement with the goal to increase participation for better health outcomes. The unique insights gained from using this methodology assist in "...increasing validity in the findings, informing the collection of the second data source, and assisting with knowledge creation".³⁵ It will attempt to fill the unexplored gap between the qualitative studies and quantitative ones by using mixed methods and contribute to the scholarship by adding a deeper understanding of participants' motivations and challenges and expanding our understanding of their physical activity trends.

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8. WHO. Global status report on physical activity 2022. Published online 2022.
9. Eyster AE, Wilcox S, Matson-Koffman D, et al. Correlates of Physical Activity among Women from Diverse Racial/Ethnic Groups. *Journal of Women's Health & Gender-Based Medicine*. 2002;11(3):239-253. doi:10.1089/152460902753668448
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12. Himmelgreen DA, Pérez-Escamilla R, Martinez D, et al. The longer you stay, the bigger you get: Length of time and language use in the U.S. are associated with obesity in Puerto Rican women. *American Journal of Physical Anthropology*. 2004;125(1):90-96. doi:10.1002/ajpa.10367
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Presentation of Results

This project is part of my dissertation to fulfill my doctoral program in the Translational Biomedical Sciences (TBS) program. I will use the results of the study to publish manuscripts to fulfill the requirements of my graduation. I also plan to attend various conferences to present my work. The first one will be American Public Health Association (APHA) conference held in November each year. The over 150 years old APHA conference is a gathering of thousands of public health professionals and a space for the latest public health research. I plan to present the results of this study at the October 27-30, 2024, annual meeting to be held in Minneapolis. This is because the abstract submission for the conference is in March and for the paper to be accepted the abstract must contain the preliminary results to be presented at the conference. I will submit my abstract in March 2024. I will present the results of the quantitative data of the study thus answering research questions one and two.

The second conference I plan to attend is the African Studies Association (ASA) annual conference which will be held December 12-14, 2024, in Chicago. ASA is the largest gathering of Africanists scholars in the United States. I plan to present research question three and four at this conference. Just like APHA, the abstract for the conference is due in March each year for the conference.

Lastly, I plan to present the preliminary results of this study at Ohio University's annual Student Research and Creative Activity Expo in April of 2024.

The core competencies of the TBS program are conducting research, communication and interacting with others. The conference and expo presentations are a productive and educational way for me to grow as a scholar, as well as to fulfill the requirements of the TBS program.

Biographical Information

Bose Maposa, MA, MPA
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Education

2019 – present	PhD, Translational Biomedical Sciences, Graduate College, Ohio University (<i>GPA 3.933</i>) Expected graduation: May 2025
2009 - 2010	MPA, Public Administration, Voinovich School of Leadership and Public Affairs, Ohio University (<i>GPA 3.908</i>)
2007 - 2009	Master of International Affairs, Center for International Studies, Ohio University (<i>GPA 3.915</i>) Field of Study: <i>African Studies</i> Certificate: <i>African Community Health</i>
2001 - 2006	Bachelor in Sports and Physical Education, International School of Sports and Physical Education. San Jose de Las Lajas, Havana, Cuba

Scholarly Presentations

1. *Exploring Physical Activity Engagement Among Black African Immigrant Women in the United States*. African Studies Association Conference. November 18, 2022 (Panel).
2. *Gender and Race Dynamics: Structural Exclusionary Practices in Leisure Time Physical Activity*. Playing With/As the Political: Sports as a Field for Politics, Power, Difference and Resistance. Wits Center for Diversity Studies. October 14, 2022. (Panel, Virtual)
3. *Understanding Botswana Women's Engagement in Physical Activity and Exercise: Preliminary Results of a Pilot Study*. Sports in Africa: African nations and World Competitions: State of Play Conference. Virtual, June 24, 2021. (Panel)
4. *Public Health Approaches to Sports and Physical Exercise in Africa*. George Washington University, Institute for African Studies. Washington DC. From the African Cup of Nations to Grassroots Sports: Policies and Practices Shaping African Sports, November 2019. (Panel)
5. *A Public Health Approach to Physical Activity to Mitigate Noncommunicable Diseases in Africa*. Modern Africa Course, Athens, Ohio. October 2019. (Class Lecture)
6. *Valuable Insights to Tackling SDG #5: A Snapshot of Four African Countries - Ethiopia, Ghana, Lesotho and South Africa*. The United Nations 2030 Sustainable Development Goals and Higher Education Conference. Athens, Ohio. November 2018. (Poster)
7. *Sports in Africa: Inclusive Recreation*. Inclusive Recreation Course. Athens, Ohio. April 2015 (Class Lecture)
8. *Transactional and Transformational Growth from the Student Perspective: The Athens County Habitat for Humanity Donation Center and Restore Project*: Ohio University Student Research and Creativity Expo. Athens, Ohio. April 2010. (Poster. Co=presenter)
9. *'Its Africa's turn': Putting symbolic politics into perspective with South Africa 2010*. Sports in Africa: Politics and Globalization Conference. Athens, Ohio. March 2010. (Panel)
10. *It's Africa's Turn: Putting Symbolic Politics Into Perspective with South Africa 2010*. National Conference of Black Political Scientists, Atlanta, Georgia. March 2009. (Panel)
11. *The Coverage of Sexual Abuse in Online Newspaper from Botswana*. Ohio University Student Research and Creativity Expo. Athens, Ohio. March 2009. (Poster)

Teaching Experience

Winter 2012 - Spring 2018 Instructor of Record; Africa's Children (INST 213-INST 2100). Ohio University, Athens, Ohio
Undergraduate course focused on an introductory explanation of African children's roles in the politics, economy, health, education, culture and work in contemporary Africa and the diaspora.

Spring 2012 - Fall 2018 Instructor of Record; Africa/Modern Africa (INST 113/INST 1100). Ohio University, Athens, Ohio
Undergraduate course that is an interdisciplinary introductory survey of Africa, its culture, history, and modern development.

Selected Relevant Courses

Year	Course Title	Year	Course Title
Fall 2022	Introduction to missed methods	Spring 2021	Chronic disease epidemiology
Fall 2021	Secondary data analysis	Summer 2020	Health policy making process
Spring 2020	Capstone in TBS	Spring 2020	Foundations in bioethics
Fall 2020	Biological research ethics	Fall 2020	Social and behavioral sciences in public health
Spring 2019	Qualitative research methods	Fall 2018	Fundamentals of global health

Selected Grants, Awards and Honors

2022 Graduate Student Travel Award (\$750). Ohio University
 2018 Swahili STARTALK Program Grant (\$86,926). National Security Agency
 2017 Swahili STARTALK Program Grant (\$89,910). National Security Agency
 2016 African Student Union Africanist Leadership Award. Ohio University, Athens
 2010 Ohio University Research and Creativity Expo 1st Place. Ohio University, Athens
 2009 Ohio University Research and Creativity Expo 2nd Place. Ohio University, Athens
 2007-2008 Masire Fellowship, Ohio University, *Athens, OH*
 2001-2006 Elite Sports Scholarship. Botswana National Sports Council, Botswana

LANGUAGES

English, Setswana, Spanish

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. DO NOT EXCEED FIVE PAGES.

NAME: Haile, Zelalem

eRA COMMONS USER NAME (credential, e.g., agency login): hailez

POSITION TITLE: Associate Professor of Epidemiology

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.*)

INSTITUTION AND LOCATION	DEGREE (if applicable)	END DATE MM/YYYY	FIELD OF STUDY
Asmara University, Asmara, Eritrea	BA	06/2000	Anthropology
University of Florida, Gainesville, Florida	MA	05/2002	Anthropology
Ohio University, Athens, Ohio	MPH	06/2009	Public Health
West Virginia University, Morgantown, West Virginia	PHD	08/2014	Epidemiology

A. Personal Statement

The overall goal of my research is to identify modifiable risk factors that can be utilized to develop effective and implementable interventions and improve maternal and infant health outcomes. The proposed research aims to identify sociodemographic and health characteristics associated with physical activity among African-born Black female immigrants aged 18 years and older in the US. I have the expertise and experience necessary to serve as a mentor for this effort. I have a broad public health and epidemiology background, expertise in mentoring graduate students, and the motivation necessary to carry out the proposed work successfully. I also have a demonstrated track record of seeing projects through to completion and have published more than 70 peer-reviewed articles. I have experience with advanced statistical methods and have carried out several collaborative population-based studies. In summary, I have a demonstrated track record of rigorous and productive research, including physical activity, and my expertise and experience have prepared me to serve as a mentor in the proposed project. Below I highlight a few papers that strongly relate to the current proposal.

1. Gau JT, Chavan B, Li Y, Clark BC, Haile ZT. Association between serum zinc levels and basic physical functioning: secondary data analysis of NHANES 2011-14. *BMC Nutr.* 2021 Oct 11;7(1):57. PubMed Central PMCID: PMC8504005.
2. Hopgood DA, Haile ZT, Conley S, Chertok IRA. Association between acculturation and sociodemographic factors and cardiovascular disease among immigrants to the United States. *Public Health Nurs.* 2021 Jan;38(1):47-55. PubMed PMID: 33107097.
3. Guseman EH, Tanda R, Haile ZT. Disparities in physical fitness of 6-11-year-old children: the 2012 NHANES National Youth Fitness Survey. *BMC Public Health.* 2020 Sep 18;20(1):1427. PubMed Central PMCID: PMC7501606.

B. Positions, Scientific Appointments and Honors**Positions and Scientific Appointments**

2020 -	Associate Professor of Epidemiology, Ohio University Heritage College of Osteopathic Medicine, Dublin, OH
2014 - 2020	Assistant Professor of Epidemiology, Ohio University Heritage College of Osteopathic Medicine, Dublin, OH
2009 - 2011	Coordinator for African Health Initiative, Ohio University, Athens, OH
2009 - 2011	Instructor, Department of Social and Public Health, Ohio University, Athens, OH

2002 - 2006 Lecturer , University of Asmara, Asmara

Honors

- 2019 Distinguished Osteopathic Commitment Award for Outstanding Research Mentor for CPC 2, OUHCOM Academic Affairs and Student Affairs
- 2018 Distinguished Osteopathic Commitment Award for Outstanding Research Mentor for CPC 1 and CPC 2, OUHCOM Academic Affairs and Student Affairs
- 2017 Distinguished Osteopathic Commitment Award for Outstanding Research Mentor for CPC 1 and CPC 2, OUHCOM Academic Affairs and Student Affairs
- 2016 Distinguished Osteopathic Commitment Award for Outstanding Behavioral Science Faculty , OUHCOM Academic Affairs and Student Affairs
- 2016 Distinguished Osteopathic Commitment Award for Outstanding Research Mentor for CPC 1 and CPC 2, OUHCOM Academic Affairs and Student Affairs
- 2016 CARE Award, Celebrating Achievements and Recognizing Excellence, OUHCOM Office of the Executive Dean
- 2015 Distinguished Osteopathic Commitment Award for Outstanding Research Mentor, OUHCOM Academic Affairs and Student Affairs

C. Contribution to Science

1. I have used national and international secondary datasets, including the Infant Feeding Practices Study II, the Pregnancy Risk Assessment and Monitoring System, and the Demographic and Health Survey, to identify factors influencing initiation, duration, and exclusive breastfeeding. Through these studies, we identified women who may need additional breastfeeding support. In particular, we have published a number of high-impact, original articles that identified several modifiable risk factors that include postpartum smoking, history of hookah use, gestational diabetes, gestational weight gain, mode of delivery, place of birth, type of health professional, receipt of influenza vaccination, stressful life events, WIC enrollment status associated with initiation, duration, and exclusivity of breastfeeding
 - a. Harriott RM, Haile ZT, Chertok IRA, Haider MR. Association between place of birth and timely breastfeeding initiation among Cambodian women: a population-based study. *Int Breastfeed J.* 2022 Jul 23;17(1):54. PubMed Central PMCID: PMC9308348.
 - b. Haile ZT, Chertok IRA, Haider MR. Association Between a History of Hookah Use and Breastfeeding Duration. *Breastfeed Med.* 2022 Aug;17(8):678-686. PubMed PMID: 35675681.
 - c. Kurniawan DW, Chertok IRA, Haile ZT. The Relationship Between Place of Birth and Early Breastfeeding Initiation in Indonesia. *J Hum Lact.* 2021 May;37(2):357-369. PubMed PMID: 32857644.
 - d. Tanda R, Chertok IRA, Haile ZT, Chavan BB. Factors That Modify the Association of Maternal Postpartum Smoking and Exclusive Breastfeeding Rates. *Breastfeed Med.* 2018 Nov;13(9):614-621. PubMed PMID: 30285471.
2. In addition to the contributions described above, with a team of collaborators, I used large nationally representative data from Ethiopia to examine the sexual and reproductive health outcomes including female genital mutilation and HIV. Our work has important implications for educating policy makers, healthcare providers.
 - a. Sara BA, Rubin SE, Haile ZT, Alemu DG, Azulay Chertok IR. Factors associated with men's opinion about female genital mutilation in Ethiopia. *Sex Reprod Healthc.* 2022 Jun;32:100721. PubMed PMID: 35354114.
 - b. Alemu DG, Haile ZT. Association between maternal attitude towards female circumcision and daughter's circumcision status. *Int J Gynaecol Obstet.* 2022 Mar;156(3):546-551. PubMed PMID: 34060075.

- c. Alemu DG, Haile ZT, Conserve DF. Attitude towards female circumcision among women in Ethiopia. *Sex Reprod Healthc.* 2021 Sep;29:100647. PubMed PMID: 34340017.
 - d. Alemu DG, Haile ZT, Iwelunmor J, Qiao S, Messias DKH, Conserve DF. Partner violence and HIV testing uptake among Ethiopian women. *Health Care Women Int.* 2021 Mar;42(3):276-287. PubMed PMID: 33084539.
3. I used nationally representative secondary data from Tanzania to examine the non-contraceptive benefits of hormonal contraceptives. We found a negative association between hormonal contraceptive use, iron-related disorders, and vitamin A deficiency. Our work has important implications for educating the public about the additional nutritional benefits of hormonal contraceptives.
- a. Fadl N, Ice GH, Haile ZT. Association between maternal high-risk factors and anemia among women in Ethiopia. *Nutrition.* 2021 Nov-Dec;91-92:111404. PubMed PMID: 34388586.
 - b. Haile ZT, Teweldeberhan AK, Chavan B, Francescon J. Hormonal contraceptive use and vitamin A deficiency among women in Tanzania. *Int J Gynaecol Obstet.* 2018 Apr;141(1):20-25. PubMed PMID: 29159927.
 - c. Haile ZT, Kingori C, Teweldeberhan AK, Chavan B. The relationship between history of hormonal contraceptive use and iron status among women in Tanzania: A population-based study. *Sex Reprod Healthc.* 2017 Oct;13:97-102. PubMed PMID: 28844365.
 - d. Haile ZT, Teweldeberhan AK, Chertok IR. Association between oral contraceptive use and markers of iron deficiency in a cross-sectional study of Tanzanian women. *Int J Gynaecol Obstet.* 2016 Jan;132(1):50-4. PubMed PMID: 26456804.
4. In addition to my interest in maternal and child health, I have been involved in several collaborative studies focusing on sexual and reproductive issues. I have led studies examining HIV risk perception, women's knowledge of mother-to-child transmission of HIV, and examining the relationship between risky sexual behavior and cervical cancer screening. Through these studies, we were able to identify at-risk populations that can be targeted for evidence-based interventions.
- a. Haile ZT, Kingori C, Chavan B, Francescon J, Teweldeberhan AK. Association Between Risky Sexual Behavior and Cervical Cancer Screening Among Women in Kenya: A Population-Based Study. *J Community Health.* 2018 Apr;43(2):238-247. PubMed PMID: 28776110.
 - b. Kingori C, Haile ZT, Ngatia P, Nderitu R. Factors that can influence feelings towards and interactions with people living with HIV/AIDS in rural Central Kenya. *Int J STD AIDS.* 2017 Aug;28(9):910-919. PubMed PMID: 27879430.
 - c. Haile ZT, Teweldeberhan AK, Chertok IR. Correlates of women's knowledge of mother-to-child transmission of HIV and its prevention in Tanzania: a population-based study. *AIDS Care.* 2016;28(1):70-8. PubMed PMID: 26278589.
 - d. Kingori C, Haile ZT, Ngatia P. Depression symptoms, social support and overall health among HIV-positive individuals in Kenya. *Int J STD AIDS.* 2015 Mar;26(3):165-72. PubMed PMID: 24759561.

Complete List of Published Work in My Bibliography:

<https://www.ncbi.nlm.nih.gov/myncbi/1fQycEV90Mu5u/bibliography/public/>

Budget and Justification

I am requesting \$6,000 for SEA and the remaining funds (\$2,949.62) will come from my research funds.

Category	Item	Explanation	Total cost
Data collection	Qualtrics	190 participants @\$31.71 plus 10% incidence	\$ 6,025.70
Total for data collection			\$ 6,025.70
Conference travel	APHA student membership	One year student membership	\$ 85.00
	APHA conference registration		\$ 265.00
	Return flight from Columbus to Minneapolis, APHA	Estimate from Google Flights	\$ 396.00
	Hotel, APHA	\$300/per night @3 nights	\$ 900.00
	Return mileage Athens to Columbus airport, APHA	\$.55 per mile @ 157.2 miles (round trip)	\$ 86.46
	ASA student membership		\$ 50.00
	ASA conference registration	One year student membership	\$ 110.00
	Return flight from Columbus to Chicago, ASA	Estimate from Google Flights	\$ 195.00
	Hotel, ASA	\$250/per night @3 nights	\$ 750.00
	Return mileage Athens to Columbus airport, ASA	\$.55 per mile @ 157.2 miles (round trip)	\$ 86.46
Total for travel			\$ 2,923.92
TOTAL project cost			\$ 8,949.62
REQUEST TO SEA			\$ 6,000.00
Costs to be covered by RI funds			\$ 2,949.62

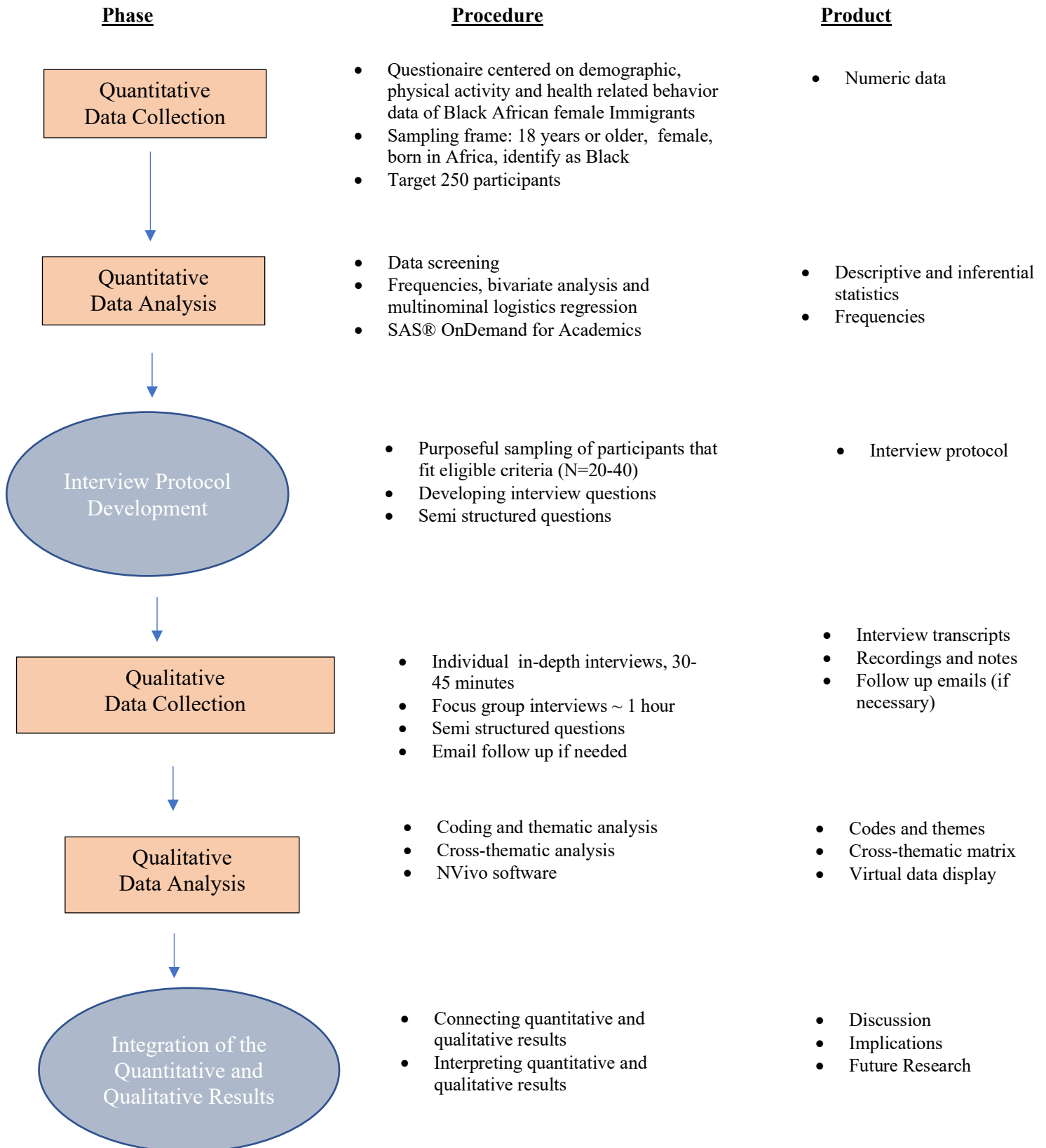
Budget Justification

Qualtrics: The target population for this study, Black female African immigrants is niche. I am also planning to recruit participants for the study nationally. For these two reasons, the most effective way for me to reach this population is through a third-party provider, and hence my use of Qualtrics as a provider. They are able to find the target population to distribute the questionnaire. My communication with them is that since they can only quote for 30 days, once the project starts, we will be able to negotiate the costs and ways to bring it down without compromising the integrity of the research project.

Conference travel: For both conferences, membership is required to register for the conference. The cost to register without membership is significantly higher than the registration as a member.

Conference travel: I chose two main conferences to attend, APHA and ASA as they are both paramount meetings for scholars in my field and research area. APHA serves as the public health lens to my research, and it is where I will present the quantitative phase of my study while at ASA, I will present the qualitative portion due to the research population. Due to budget constraints, I will not be asking for a per diem at this time.

Appendix 1: Explanatory sequential mixed methods procedure diagram for physical activity engagement among Black African female immigrants in the United States



Appendix 2: Explanatory Sequential Design Integration

Quantitative Results	Qualitative Follow-Up Questions	How Qualitative Findings Help Explain Quantitative Results
Answer research questions 1 & 2	<ul style="list-style-type: none">• Define themes from quantitative findings and create questions for the interview phase• Answer research questions 3 & 4	<ul style="list-style-type: none">• Answer research question 5• List significant findings, similarities, outliers, and general trends



Research Services Quote

Qual5808-0118-ImmigrantsBose

333 W River Park Drive
Provo, UT 84604
US

19-Jan-2023

Expires after 30 days

Phone: (801) 374-6682

Payment Terms Net 30 from invoice

Fax: (866) 562-9828

DESCRIPTION

Research Services: USD 6025.7

TOTAL AMOUNT DUE TO QUALTRICS USD 6025.7

Summary:

Panel Sample | Custom

Qualtrics will perform the following sample services (the 'Sample Service'):

Project type: Consumer

N: 190n

LOI: 10 min.

IR: 6-10%

Targetable Screeners:

Countries: US

Screeners: - US age 18+ - Must be a black female - Must be an immigrant from Africa (born anywhere on the continent of Africa)

Optional PII collection: name and phone number --PII for follow-up in depth interview (phone) -- LOI: 5-10 minute

Non-Targetable Screeners:

Optional PII Collection: Name, Phone Number

IR will be monitored in the field, CPI subject to revision if IR drops below the given estimate.

Unless otherwise agreed, such Sample Services will not include:

Front-end services such as survey methodology, survey design, survey programming, or translations.

Any back-end services such as data scrubbing, open end coding, data analysis, data interpretation, or data presentation.

Delivery Team Responsibilities:

Manage the data collection process overall.

Set up and test survey quotas, screeners, and related logic, and approve the survey prior to launching to targeted respondents.

This does not include reviewing additional skip logic or display logic, unless otherwise agreed.

Set up the technical integration and testing with strategic online panel partners (including redirect links).

Invite respondents to complete the online survey in return for incentives/cash honorarium.

Monitor data collection and send updates to Customer during fielding.

Customer Responsibilities:

Unless otherwise agreed, design and program survey in an official or common language of the countries being targeted.

Mason Baird

masonb@qualtrics.com

(801) 374-6682



Research Services Quote

Qual5808-0118-ImmigrantsBose

Provide qualifying question syntax for screeners and quotas.
Review soft launch data.

Assumptions:

Qualtrics reserves the right to reassess feasibility for the Sample Service if the project has not launched/data collection has not begun within 90 days of the Effective Date.

Customer is not permitted to collect any panel member’s personal information, such as name, email address, physical address, or phone number ('Personal Information'), without Qualtrics’ prior written consent. Where Customer collects Personal Information, Qualtrics is strictly a data processor, not a data controller, for the processing of the data in order to provide the Services. Each party shall comply with applicable laws, rules, and regulations, including applicable data privacy laws (in Qualtrics’ case, as a data processor, and in Customer’s case, as a data controller).

Qualtrics is not required to disclose to Customer any Personal Information of respondents related to the Project, except as permitted by law and in accordance with this Exhibit, in which case Customer shall maintain the confidentiality of any Personal Information disclosed to it. Customer shall comply with all applicable laws related to the data collected from respondents. Unless otherwise specified herein, the location of all targeted respondents shall be at Qualtrics’ sole discretion.

Any criteria that Customer intends to use to judge the validity of qualifying completes (e.g., minimum time spent in survey and attention filters) must be approved by Qualtrics prior to launch. Any requests or changes to qualified respondent criteria or any changes to the assumptions beyond the original scope of this Exhibit may increase prices and timelines or decrease feasibility, and such changes (including decreases) will be subject to Customer's and Qualtrics' prior written approval.

Unless specified to the Delivery Team before data collection begins, Qualtrics will not record partial completes for this Project in Customer’s Qualtrics account. These partial completes will not count against the total good completes (n) requested for the Project. Respondents who do not meet the qualifying criteria outlined in the sample description of the Exhibit will be screened out of the survey and will not count towards the total number of paid responses (n) for the Project.

Sample pricing is based on certain response volumes. Any Customer-requested changes (including decreases) to the actual response volumes in the original Project scope may result in an increased cost per interview, adjusted feasibility, or extended timelines for the completed responses, and such changes (including decreases) will be subject to Customer's and Qualtrics' prior written approval.

Data collection may take up to 24 hours to begin after a project manager is assigned and Project specifications have been finalized and confirmed by Customer.

Notwithstanding the above acceptance criteria, the Delivery Team will not begin collecting sample on behalf of Customer without prior written approval from Customer.

Sample Size:	190
Length of Survey:	10 Minutes or less.
Incidence or Qualifying Rate:	10%

Mason Baird

masonb@qualtrics.com

(801) 374-6682

Subject: [External] Re: Request for quote
Date: Thursday, January 19, 2023 at 11:19:23 AM Eastern Standard Time
From: Tasi Hannemann
To: Maposa, Bose
Attachments: Quote RS - a4V2J000001ZctzUAC (1).pdf

Use caution with links and attachments.

Hi Bose,

I have your quote ready and attached it below. This is a a very hard-to-reach population and expensive sample. We can chat about ways to bring the cost down if you're open to changing the scope (e.g., not collection PII - name, phone numbers for IDs).

The price per respondent is \$31.71. Our max feasibility with this population, 956n. The quote is for 190n to get closer to your 6k grant amount.

Let me know if you have any questions!

On Tue, Jan 17, 2023 at 2:13 PM Maposa, Bose <bm745207@ohio.edu> wrote:

Good afternoon Tasi and Mason,

My name is Bose and I am a mentee of Dr. Ani Ruhil at Ohio University. He is the one that suggested I reach out to you both.

I am doing my doctoral work and looking to interview Blac female immigrants aged 18 years and over born anywhere on the continent of Africa regarding their engagement in physical activity. My project is a mixed methods study, so I would be looking to distribute a survey of about 25-50 questions to a target of 1000 people and then follow up with in depth interviews with about 20-30 of the respondents.

Would this be something you would be able to assist with? And if so, an estimate of the cost?

I am happy to provide more details as needed.

Thank you,

Bose