Medical Research Archives

ESMED
European Society of Medicine

OPEN ACCESS

Published: March 31, 2023

Citation: Olihe N Okoro, 2023. Developing a Culturally Responsive Sexual and Reproductive Health Curriculum for HIV Prevention among African Immigrant Women, Medical Research Archives, [online] 11(3). https://doi.org/10.18103/mra.v11i3.3646

Copyright: © 2023 European Society of Medicine. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

DOI
https://doi.org/10.18103/mra.v11i3.3646

ISSN: 2375-1924

RESEARCH ARTICLE

Developing a Culturally Responsive Sexual and Reproductive Health Curriculum for HIV Prevention among African Immigrant Women

Okoro, Olihe N, PhD, MPH (*Corresponding Author*)
University of Minnesota, College of Pharmacy, Duluth
1110 Kirby Drive | Duluth MN 55812

Shanasha Whitson O, MA, MBA, LSW
Executive Director/CEO, Community Partnership Collaborative 2.0

Nambangi, Melissa N, MA
Executive Director/CEO, Minnesota African Women's Association

Ballay-Swaray, Vivian K, PsyD, LP
CEO/Psychologist/Consultant, VEEMAH Integrated Wellness & Consulting Services, LLC

Rotich, Veronica C, BA
Executive Director/CEO, African Women & Youth Resource Center

Boumi Ama E, MSc
Executive Director/CEO, Empowerment Consulting Services

Gobina Elizabeth N,
Volunteer, Minnesota African Women's Association

*ookoro@d.umn.edu

ABSTRACT
Background: Incidence rates of HIV are higher among African-born immigrants than in the general US population. In Minnesota, African-born immigrant women accounted for 40% of all adult females (as assigned by birth) living with HIV and 39% of new diagnosis in 2021, while constituting only 2% of the female population. Findings from a preliminary study point to gender-specific, sociocultural factors as drivers of HIV in this population. Key among these is the lack of sexual and reproductive health knowledge, consequent to cultural norms that regard sex-related discussions as taboo, making African women particularly vulnerable to HIV infection. Conventional HIV prevention programming has not been effective as these approaches lack cultural congruence. In the absence of culturally responsive strategies, AB women are likely to remain at significant risk of HIV.

Program Description: This report is a description of the process and key elements employed in developing a curriculum for culturally-responsive, community-based sexual and reproductive health education for HIV prevention among African-born women. The Curriculum Design Team (CDT) of five (5) AB immigrant women adapted and augmented the *Becoming A Responsible Teenager (BART)* curriculum and developed a culturally congruent theoretical framework to guide programming. Feedback on the curriculum and programming was sought from community members through focus groups with African-born men and women, respectively.

Recommendations: Feedback from community-engaged efforts included alignment with cultural norms and values regarding the roles and influence of women; ensuring cultural appropriateness of content and delivery; racial-concordance of facilitators and participants; and use of informal social group setting as critical elements to facilitate engagement of African-born women in the proposed approach to HIV prevention in this population.

Keywords: HIV, African women, sexual and reproductive health, immigrant health, HIV prevention, community-engaged health education

INTRODUCTION

HIV disparities affecting African-born immigrant women

Black women in the US have the highest HIV incidence rates compared to other race/ethnicities, with incidence rates 11 times that of white women and four times that of Latina women between 2015 - 2019.[1] While the rate of HIV diagnosis among Black women in the US has been on the decline, there are persistent disparities between US-born (African-American) and non-US born Black women, particularly African-born (AB) immigrant women.[2-4] From 2008 – 2014, 11.1% of the 110,452 Black adults reported as new HIV cases with data on country of birth, were non-U.S.-born, and more likely to be older, female, and have HIV infection attributed to heterosexual contact.[2] In 2014, the rate of HIV diagnosis among AB Black females was 1.4 times the rate of US-born Black males, twice the rate of AB Black males, and 5.3 times that of US-born Black females.[5] From 2008 – 2016, HIV diagnosis rates for AB women declined from 134.6 per 100 000 to 92.1 per 100 000 population. However, in the same timeframe, the decline among US-born Black women was 39.8/100 000 to 15.8/100 000 population.[5] Therefore, AB women remain a priority group for HIV prevention and treatment.

Population data at the national level is arguably an under-estimation due to aggregation of racial/ethnic categories in the US HIV surveillance data.[6,7] The aggregation poses significant limitations to capturing accurate HIV incidence and prevalence estimates in this population. For this reason, monitoring of trends and evaluation of HIV-related programmatic efforts in this population are also a challenge. The state of Minnesota is one of the few states with disaggregated data, which captures HIV statistics for AB immigrants as a distinct group. In Minnesota, while AB persons constitute only 2% of the state population, new HIV cases in this population constituted 17% of new HIV diagnoses in 2021.[8] Proportionally, AB women are more affected than AB men are. They accounted for 39% of new HIV cases among women in 2021 while AB men accounted for 9% among men.[8] This trend suggests that they may be vulnerable groups in this population that are at high risk of acquiring HIV.

Socioeconomic and sociocultural factors as drivers of HIV infection

Several studies indicate that a substantial proportion of foreign-born persons may be infected with HIV after migrating to the United States.[6, 9-11] Several factors have been implicated in the increased vulnerability associated with risk of HIV infection for AB immigrants, clustering being of significance.[6] Immigrants tend to have sexual networks that are predominantly amongst people from their own country or of similar cultural background.[12] This clustering may explain the higher HIV incidence in African immigrant populations compared to the general population in the US. The need for social support when new in a foreign land, and the challenge of securing housing due to lack of income and/or undocumented status typically lead to clustering in specific residential areas for immigrants.[13] This, also significantly increases the risk of HIV transmission. Also implicated in the risk for HIV is socioeconomic disadvantage, which is associated with low English proficiency [LEP] prevalent in some immigrant populations.[14-15] As a result, there is economic and social dependency; creating vulnerability especially among women. These socioeconomic circumstances ultimately put them at risk of HIV infection.

Gender-specific, sociocultural factors have also been reported as drivers of HIV incidence in this population. These include domestic/intimate partner violence, gender-biased stigma, cultural beliefs/norms, unprotected sex with husbands who have sex with other men, gender provider-patient discordance, and sexual/reproductive health illiteracy.[16] These are consequent to the cultural norms that regard sex-related discussions as taboo particularly for women. The lack of sexual/reproductive health knowledge is associated with inaccurate perception of HIV risk, which combined with the aforementioned factors make AB women particularly vulnerable to acquiring HIV. Interventions targeting AB immigrant women must therefore be inclusive of information relevant to both HIV prevention and socio-economic empowerment.

Lack of a culturally responsive sexual and reproductive health programming

A major factor that intersects with the above listed sociocultural factors is low sexual and reproductive health (SRH) literacy prevalent among AB immigrant women. This is consequent to the taboo of discussing sex-related topics.[16] In a preliminary investigation, the key recommendation was to address these barriers/drivers within the context of SRH education rather than an intervention exclusively focused on HIV due to associated stigma. Sexual and reproductive health programs (education, services) have been used in public health efforts to prevent the spread of sexually transmitted diseases.[17-19] However, AB immigrant populations have generally been hesitant to engage in mainstream programs. One major reason for the "push back" from AB immigrant communities is that issues around gender roles, sexual orientation and understanding the male and female anatomy are often presented in a way perceived to oppose rather than embrace their cultural and religious beliefs.[20] In African communities, culture and religion are central to how people receive information about sex and sexuality, how they assimilate it, and whether or not they ultimately apply it to their decision-making and behaviors. Educational content in this regard must therefore be in alignment with cultural and religious values.

Mainstream sexual health educational interventions may be well grounded in evidence-based theoretical frameworks but often lack cohesive components relevant to the African culture. In addition, information intended to educate could easily get lost in translation and may even be perceived as being at variance with culturally-rooted beliefs about sex and sexuality or contrary to values that traditionally define health and quality of life in general.[21, 22] We therefore embarked on a project to develop a sexual and reproductive health curriculum by adapting and augmenting a conventional curriculum - the *Becoming a Responsible Teen (BART)* - used primarily in HIV prevention for African-American youth.[23] In this report, we share the curriculum development process.

CURRICULUM DEVELOPMENT

Specific Objectives

The recommendation from previous research was to adapt an existing curriculum rather than re-invent the wheel. The curriculum development team (CDT) lead, who is a sexual and reproductive health (SRH) educator, had in a previous work adapted the *Becoming A Responsible Teenager (BART)* curriculum created for African-American (AA) teenagers, and used it to educate AB teenagers. From her experiences and program outcome evaluations, she vouched for its congruence with and adaptability to the African culture. Following discussions with the investigators, there was consensus that the *BART* curriculum be adapted. The investigators and the team lead reached out to other African women. With their consent, the CDT was formally assembled, and tasked with the following:

Objective 1: Review the BART curriculum
Objective 2: Recommend steps to make it a resource for culturally appropriate SRH education targeting (but not limited to) AB women with little or no formal education

- Determine modalities/strategies for educating AB women on SRH given the diversity in cultural, religious and literacy levels;
- Establish core universal African values that will guide the curriculum development and use

The Curriculum Design Team (CDT)

The Curriculum Design Team (CDT) consisted of five (5) African-born (AB) immigrant women. These women were active community leaders, advocates and educators, and came from four (4) African countries – Cameroun (2), Togo (1), Liberia (1) and Kenya (1). All five women had college or more level of education and had lived in the US for more than 10 years.

Procedure

Review of the BART Curriculum. At the inaugural in-person meeting, each member of the CDT introduced herself and stated their motivation for participating in the project. The CDT lead explained the objectives and distributed a pre-designed *Curriculum Review Form*. The form outlined all aspects that members were to consider in reviewing the BART curriculum. Their main task was to decide which pieces were culturally appropriate for AB women and either retain those as is, or recommend adaptations or outright changes to make them more culturally responsive. Each week following, members received a set of BART sessions (modules) via email for review. For each session, they noted their comments on the review form and emailed back to the CDT lead, who collated and supplemented the feedback. The team met in-person weekly for 3 to 4-hour sessions, where each member had the opportunity to elaborate on and explain the rationale behind her ideas and suggestions. Team members discussed issues raised, amended and expanded on recommendations from each other's reviews, and agreed on which pieces to be retained for the final product. Team members also examined additional pieces prepared by the team lead for relevance, to which they gave their feedback, made input and recommendations. These included a list of African proverbs, some culturally appropriate ice-breakers, community asset-mapping exercises and a theoretical framework – the *African Women's Health Education Wheel* (see *figure I*).

Considerations and Guidelines. The considerations and guidelines that the CDT used as they reviewed the BART curriculum and made recommendations for adaptation included the following:

i.) Holistic and comprehensive study of the BART curriculum – including all sessions and topics, handouts and suggested activities;
ii.) Myths and misconceptions about HIV/AIDS and about SRH (contraception, pregnancy, etc.) in the African community;
iii.) Cultural norms and beliefs related to the topics covered in the curriculum;
iv.) African cultural values that impact interest in and attitudes towards education about SRH and HIV
v.) Barriers to practicing safe sex for AB women

Parameters. The following are other parameters that reviewers were asked to consider as they adapted modules from the BART curriculum:

- A didactic session and interactive piece(s) for each module with a view of examining the practical applicability of relevant information to real life contexts of AB women;
- Questions for a Pre- and post-class evaluation questionnaire for each pair of modules to test immediate gains in knowledge and understanding
- Questions for a pre-/post-survey to assess overall change in *knowledge, attitudes, self-efficacy* and *risk-perception*.

The 5-member CDT worked over a period of 6 weeks contributing over 250 hours cumulatively to the project. Below are their recommendations for the adaptation of the BART curriculum, and its use as an HIV prevention approach focused on AB women.

Recommendations

Recommendation #1: <u>A culturally appropriate name for the curriculum</u>. The rationale for a name that addresses health versus sexual health was that African women tended to be averse to associating with anything with the word or idea of "sex" or "sexual" in the title. After much deliberation, the recommended name was - the ***African Women Making Healthy Choices [AWMHC]*** curriculum.

Recommendation #2: <u>Adherence to copyright and intellectual property laws.</u> The team recommended that the BART curriculum be used with an addendum for educators facilitating sessions for AB women, not reproduced with the recommended changes and additions. They also recommended that following empirical demonstration of effectiveness, permission be obtained from ETR Associates, the owners of the BART curriculum, to adapt it for African women, honoring all the copyright and intellectual property laws.

Recommendation #3: <u>A culturally congruent theoretical framework to guide programming</u> for effective SRH education of African women. The team first acknowledged the challenge of getting African women interested in learning about and maintaining their sexual health in light of all the cultural beliefs and myths that act as barriers to this. The team came up with the framework - the ***African Queens Health Education Wheel*** (see figure 1.) The rationale behind the name being that participants

are all African women, and if they take care of their health in line with this model, they attain the status of Queens – being rich in health and taking the lead in caring for their community's health.

This framework harnesses cultural beliefs and normative values about the pivotal roles (caregiver, educator, support system, promoter, leader, etc.) and relevance of the African woman as the "rock" in the family, home, village/community and the larger society. These beliefs and values around communal well-being motivate and empower women to take action on any issue related to their children, families, community, and broader society, even in the face of the cultural barriers. The pitch therefore in getting buy-in for SRH education, was this: Being empowered with sexual health education, the woman can in turn empower her family, relatives, friends and community. Also,by staying healthy themselves, African women are then able to continue participating in their roles. The key message then being that the woman needs to be healthy to be there for others, hence the focus on herself. The CDT recommended that the *African Queens Health Education Wheel* be trademarked and anticipated further modification over time.

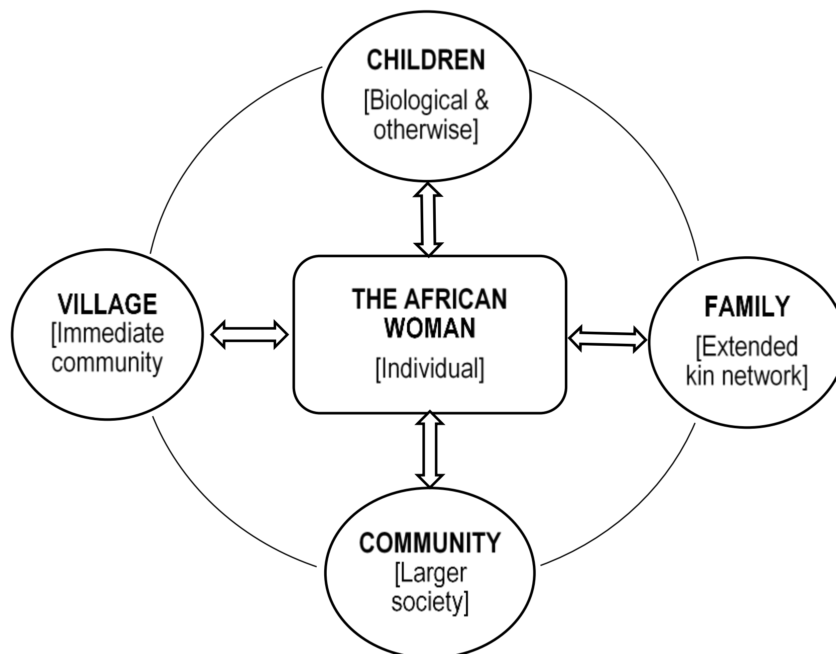

Figure 1. – The *African Queens Health Education Wheel*

Recommendation #4. Use of female African community leaders/educators as volunteer participants/facilitators. The team conducted a community asset-mapping exercise to identify African female community leaders and advocates who would be willing to be resource persons in the facilitation of educational sessions using the AWMHC curriculum. These "volunteer facilitators" would assist with various aspects of the project such as breaking the ice '*African-Style*' in the first couple of sessions and making the participants comfortable with discussing this "taboo" subject, "interpreting" for the participants, assisting with the pre- and post-surveys when necessary, and actually recording survey responses for those who do not read or write English. In attending some sessions, especially the early ones, these volunteer facilitators would act as an immediate support system, ease the tension of discussing a taboo subject, and make it easier for participants to discuss with less reservation. The women identified through the asset mapping had been active in the African community and/or had worked with educating women in health matters for several years prior.

Recommendation #5. Adoption of same approach to education regardless of literacy level or educational attainment. The CDT asserted that the approaches recommended in the AWMHC curriculum would work as well for African women with advanced formal education as it would those

without any formal education. The rationale was that the cultural barriers to discussions around sex and sexual health had historically limited the understanding and knowledge of the female and male anatomy and physiology, as well as the sexual vocabulary commonly used for African women in general. The AWMHC curriculum would therefore serve AB women of low or no formal education as well as those with advanced education.

Recommendation #6. Edits, revisions, and augmentations to obtain a curriculum culturally appropriate for African women. In addition to the change in the name of the curriculum, below are other changes recommended for cultural appropriateness.

- Replace all references of "girl", "African-American", and "youth" to "woman", "African or African-born" and "adult" respectively.
- Replace slang and innuendos that apply to teenagers to those that fit women and/or African-Born women - e.g., "school" to "community", "parents and guardians" to "friends and relatives", and "party" to "social event".
- Replace concepts associated with the African-American heritage (e.g. Kwanzaa, Nguzo Saba – *the 7 principles of Kwanzaa,* etc.) with similar concepts in the African culture using their English translations but explained with the use of proverbs. For example, one of the principles of Kwanzaa is Umoja, which speaks to the philosophy of collectivism - maintaining unity of family, community and the Black race. This is a core value in African cultures and several African proverbs speaks to that, for example this Swahili proverb – *"Unity is strength, division is weakness"*. The CDT also provided a list of African proverbs that illustrate these values.
- *Role-plays and Skits.* Create role-plays that depict the lesson or concept but reflect realistic situations to which African women can relate. Replace names mentioned in role-plays and other activities (like skits) to African names, which will enable participants to relate with the concepts being portrayed. The CDT also provided a list of potential names from different African languages.
- *Videos and Visual Aids.* Replace all videos and visual aids with new ones featuring African adults (versus AA teenagers) and appropriate realistic content. While a couple of the videos and other visual aid tools were considered acceptable for the target group, the team recommended that new videos portraying African adult women and men be found and used (or created). The CDT made some suggestions, which they included in their report. The same recommendation were applicable to icebreakers – they urged the use of examples related to life back home on the African continent and in the context of the African community here in the US as well.

Recommendation #7. Limit the frequency of pre- and post-evaluations. The CDT team recommended a pre-session evaluation, a mid-session evaluation (more for process evaluation), and a post-session evaluation same as was administered pre-intervention. There were concerns that more than one pre-/post-session evaluation would not be appropriate for this target group, as it could make the program seem tedious and less exciting for them. They pointed out that too many "tests" may turn it into more of a formal (anxiety-raising, "exam-like") classroom experience rather than a "fun-though-serious" community learning experience intended. Also of note was that some of the modules had Questions and Answers that would demonstrate knowledge gained by the program participants.

Recommendation #8. Adding two new modules: the female anatomy (*Knowing Your Body*) and *Definitions of Commonly Used Terms* relevant to SRH (see Table 1.). The CDT affirmed that given the taboo nature of this subject, little education was ever provided on sex in the African woman's life course. Secondly, the lack of a high level of formal education in sub-groups within this target population, meant that many may not be familiar with English terms like uterus, ovaries, cervix, etc. They asserted that many of these women generally knew of the existence of just one or two parts of the female anatomy – typically the vagina and the womb. Thirdly, many of the African women may not have taken Biology classes and/or other related subjects, and therefore may lack understanding of terms and concepts like ovulation and transmission of sexually-transmitted diseases. All these made it essential for *"Knowing Your Body"* to be the opening module and for *Definitions of Commonly Used Terms* to be the second module of the curriculum. To facilitate learning of these two sessions, the team recommended use of 3-D models for the human anatomy - womb, vagina, and penis for condom use demonstrations.

Recommendation #9. Issuing a certificate to participants upon completion of the course. The CDT strongly recommended giving participants in the educational program a certificate of completion as a testimonial of their accomplishment. They anticipated that this gesture would validate the knowledge gained and skills acquired during the program, as well as provide incentive for participation.

Table 1. – African Women Feedback and Recommendations on the Curriculum

Title	Current name OK, though generic. *Suggestion:* Be flexible and adopt names each group can relate with when tailoring to different cultural and religious groups to stimulate interest and facilitate recruitment
Module 1: *Getting to Know Your Body [Female anatomy]*	Add information on *Female Genital Mutilation*
Module 2: *Definitions of commonly used sexual health terms*	Ensure that the terms used are equivalent to the terms specific to that culture Encourage participants to discuss what terms are used in their communities, home, school, with significant other, on the street, social media – encourage engagement
Module 3: *Understanding Reproductive Health*	Leave title as "*Understanding Sexual & Reproductive Health*" (remove Disease) Emphasize impact on fertility/child bearing Consider apportioning more time to the session
Module 4: *Making Sexual Decisions and Understanding Your Values*	Amend title to "*African Values & Making Sexual Decisions*" Include content on "dress code" (Modesty being a cultural value)
Module 5: *Skills Related to Unplanned Pregnancies & Avoiding Diseases*	Include diseases associated with oral and anal sex Bundle with module 8 and deliver as a session (6 & 7 together)
Module 6: *Learning Assertive Communication Skills*	Distinguish between myths that are universally held and ones that are culturally specific
Module 7: *Practicing Assertive Communication Skills*	Skits used should be culturally relevant and tailored to each group
Module 8: *Personalizing the Risks (How Risky is this for me?)*	Include risk of diseases associated with oral and anal sex Emphasize condom use (male and female)
Module 9: *Spreading the Word*	Be explicit about what "*Spreading the Word*" means
Module 10: *Taking AWMHC with You*	*No suggestions*
Pre-/post survey	May be more effective if administered one-on-one versus self-administered
Other suggestions	Include information on the following: Obtaining insurance - Finding the right doctor - Where to get tested for STIs/HIV - Information on where to access relevant information, services, providers, agencies

Augmentations. In view of the recommendations made, the CDT provided several resource materials to help educators in facilitating the proposed educational sessions, including those developed by the team. These were included as appendices:

Appendix 1: *Pre-Course evaluation Survey*
Appendix 2: *Post-Session Evaluation Survey*
Appendix 3: *Definition of Commonly Used Sexual Health Terms List*
Appendix 4: *List of Common African HIV/AIDS Myths*
Appendix 5: *True or False Question Samples*
Appendix 6: *African Queens Health Education Wheel*

Appendix 7: *Applicable African Proverbs and explanations*
Appendix 8: *Common African names for use in skits and stories*
Appendix 9: *Suggested Ice-breakers, skits and videos*
Appendix 10: *"I have the Right to…" Sexual Rights (African Women's Bill of Rights)*
Appendix 11: *Community Asset Mapping exercise: List of Female African Community Leaders & Educators*
Appendix 12: *Review forms with raw data from Curriculum Design Team*
Appendix 13: *BART Curriculum with edits*
Appendix 14: *MAWA's Culturally Appropriate HIV/AIDS Education for Africans Brochure [*MAWA – Minnesota African Women's Association]*

The team also included the original review forms to provide insight into the adaptation process for educators who were not part of the CDT. The CDT ended their work by writing individual self-reflections on their experience working together to develop the curriculum. A common theme in these reflections was how empowering and rewarding it was to engage with other African women in developing something that would serve their communities well.

COMMUNITY ENGAGEMENT

After the CDT put together the AWMHC curriculum, the work was presented to participants at four (4) focus group discussions (FGD) – two conducted with African women and two with African men. Participants had a broad range of demographic characteristics (see Table 2.). Each of the FGDs was held in a home setting, where a meal consisting of a variety of African dishes was served. The facilitator started each FGD sharing on (i.) the state STIs and HIV/AIDS statistics with emphasis on race/ethnicity, geographic location, age group and gender; and (ii.) the findings of the *Needs Assessment* that prompted the development of the AWMHC curriculum. A member of the CDT then described the curriculum, providing a brief overview and highlighting the potential benefits.

Table 2. – Characteristics of Community Focus Group Participants

WOMEN			MEN		
Focus Group Participants	Group 1 Group 2	6 5	***Focus Group Participants***	Group 1 Group 2	4 3
Countries of Origin	Kenya Liberia Zambia Zimbabwe	6 2 2 1	***Countries of Origin***	Kenya Nigeria Guinea Liberia	1 2 1 4
Age	20 – 24 25 – 29 30 – 34 35 – 39 40 and above	1 2 4 2 2	***Age***	20 – 24 25 – 29 30 – 34 35 – 39 40 and above	- 1 1 2 3

Women Focus Groups. Each group was presented with the key pieces of the adapted curriculum. The participants were asked to review and provide feedback. Below are the FGD questions and summary of responses.

Women FGD Questions:

- What do you think about the suggested name of this curriculum/program: "African Women Making Healthy Choices" (AWMHC)? What do you think about the (titles of the) modules?
    - *Any concerns, recommended changes, suggestions?*
- Please provide feedback on the pre-/post-survey in terms of
    - *Cultural appropriateness | Comprehension by persons with low literacy | length/ time for completion (self-administered versus facilitated)*
- What are your major concerns about the proposed intervention?
- What are the barriers you foresee in implementing this curriculum?
- What venue and type of gathering will be the most appropriate setting for this education - *in*

a home, community center, informal meeting, classroom type forum, etc.?

- What time(s) will be best for the women to attend these sessions?
- How can we recruit participants for the education?
- What will be an appropriate incentive for the women?

The women provided substantive feedback and made several recommendations for effective program implementation (see Table 3.)

Table 3. – African Women's recommendations for the delivery of the Curriculum
Delivery of sessions should be in comfortable, safe space e.g. home setting
The facilitator has to be very competent culturally, and be sensitive to the dynamics of the group to ensure engagement (Has to be an African woman)
Have different curricular content (and groups) for young women vs. older women - *Sexual health, reproductive health, medical needs change as women age; these are different from those of child bearing years and those of teens*
Personal invitation from a gatekeeper in target groups more effective than using flyers. - *Eg. a woman who is a pastor's wife, community advocate and/or leader can organize her group and bring in the facilitators to deliver the curriculum to her Kenyan women's church group or the Liberian women's council, or the Somali Sista Halaqa group . . .*
The 'host participant' (gate-keeper) critical to the success of the program - *The woman who organizes the group has access to and understands the women in the group. They are able to moderate the sessions and ask the facilitators questions that the women may not (acting as a 'buffer').*
Sessions should last 2 - 3 hours. Food and socialization prior to sessions, as culturally appropriate.
Delivery should be informal, more like having a conversation as opposed to be didactic teaching – African women want to feel like they are a part of the communication
Honor the oral traditions of communication – start with relevant stories, poems, idioms, etc. to help women relate and engage with topic
Curriculum could be used as a *train-the-trainer* type curriculum e.g. Community Promise - *Provide financial incentive for the host participant – to keep participants coming back and provide food at the sessions.* - *At completion, any participant can then 'host' another group and be compensated*
A resource guide should be offered so women can get information about where and how to access care and services
Other considerations - *Develop curricular content addressing how parents talk to their kids about sex. Topics that include specifically talking about culture and sex and how this impacts sexual behavior* - *Develop a SRH curriculum for African men*

Men's Focus Groups. The men were not asked to review the pieces of the curriculum. Rather they were asked broader questions about SRH education for African women and their suggestions on its implementation. The objective of having the men FGDs was to gauge acceptance and buy-in from African men regarding SRH education for their women.

Men's FGD Questions:

- What do you think about the proposed health education - *the content, the implementation approach?*
- How do you think most African-born men will view their significant other participating in this proposed health education?
- What do you think will be the biggest challenge(s) with engaging African-born women in this proposed health education? *How can we overcome the challenge(s) identified?*
- What other suggestions do you have about how this health education can be implemented effectively?

There was consensus that the proposed program was appropriate and would be beneficial to the women and the community at large (See Table 4.)

Table 4. – African Men's recommendations for the delivery of the Curriculum
The proposed approach can work if the implementation incorporates cultural and traditional considerations
African men will be generally OK with their women participating if it is from a reproductive health standpoint that then incorporates HIV and STIs
Potential challenge: ***learning environment***. Recommendations to ensure this included - -The setting must be culturally-sensitive - The facilitators have to be African (or *African-American*), from the community, have a deep -understanding of the culture and how to work within the context of African tradition - Foods served should be indigenous to the group - Facilitator from same background will be best - Icebreakers that allow woman have conversations around commonalities like their immigrant experiences
Potential challenge: ***acceptability*** - start off talking about reproductive health and approach it from the impacts of STD's and HIV on the reproductive health system. That way women can feel comfortable learning and men can be supportive of women learning how to take care of their bodies by learning reproductive health. - Address issues around sex and sexuality from faith-based tenets – the Koran for Muslim women and the Bible for Christian women
Include content to address hygiene and post-partum health
Consider educating men also - on women's reproductive health as well so they "know what is going on." - on how to interact and communicate with their women and children about sex - through home-work/ take-home assignments that include men

KEY INSIGHTS

- HIV prevention for African–born immigrant women needs to address sociocultural factors and social determinants of health.
- Health education and promotion targeting African women must be aligned with cultural norms and values regarding the roles and influence of women in their families, extended kin networks, communities and society.
- Sexual and reproductive health education is an innovative and culturally appropriate approach to HIV prevention with African women.
- Racial-concordance of facilitators and participants and informal social group setting are critical elements that facilitate engagement of African women in HIV prevention programs.

Conflicts of Interest Statement: None of the authors have any conflicts of interest (financial or otherwise) to declare.

Funding Statement: The work was supported by funding from the University of Minnesota, College of Pharmacy

Acknowledgement: Many thanks to the members of the African-born immigrant community who participated in work groups, providing key insights that aided this work.

REFERENCES

1. Dailey A, Gant Z, Li J, Nagaraju S, Elenwa F, Singh S, Logan JE, Johnson AS, Lyons SJ, Siddiqi AE, Hernandez AL. Diagnoses of HIV infection in the United States and dependent areas, 2020.
2. Demeke HB, Johnson AS, Wu B, Nwangwu-Ike N, King H, Dean HD. Differences between US-born and non-US-born black adults reported with diagnosed HIV infection: United States, 2008–2014. Journal of immigrant and minority health. 2019;21(1):30-38.
3. Johnson AS, Hu X, Dean HD. Epidemiologic differences between native-born and foreign-born black people diagnosed with HIV infection in 33 U.S. states, 2001-2007. *Public Health Rep*. 2010;125 Suppl 4(Suppl 4):61-69. doi:10.1177/00333549101250S410
4. Blanas DA, Nichols K, Bekele M, Lugg A, Kerani RP, Horowitz CR. HIV/AIDS among African-born residents in the United States. *J Immigr Minor Health*. 2013;15(4):718-724. doi:10.1007/s10903-012-9691-6
5. Demeke HB, Johnson AS, Zhu H, Gant Z, Duffus WA, Dean HD. HIV Infection-Related Care Outcomes among U.S.-Born and Non-U.S.-Born Blacks with Diagnosed HIV in 40 U.S. Areas: The National HIV Surveillance System, 2016. *Int J Environ Res Public Health*. 2018;15(11):2404. doi:10.3390/ijerph15112404
6. Kerani RP, Kent JB, Sides T, et al. HIV among African-born persons in the United States: a hidden epidemic?. *J Acquir Immune Defic Syndr*. 2008;49(1):102-106. doi:10.1097/QAI.0b013e3181831806
7. Koku EF, Rajab-Gyagenda WM, Korto MD, et al. HIV/AIDS among African Immigrants in the U.S.: The Need for Disaggregating HIV Surveillance Data by Country of Birth. *J Health Care Poor Underserved*. 2016;27(3):1316-1329. doi:10.1353/hpu.2016.0128
8. Minnesota Department of Health (MDH) HIV Surveillance Report, 2021. Available at https://www.health.state.mn.us/diseases/hiv/stats/2021/index.html Accessed January 28, 2023
9. Wertheim JO, Oster AM, Hernandez AL, Saduvala N, Bañez Ocfemia MC, Hall HI. The International Dimension of the U.S. HIV Transmission Network and Onward Transmission of HIV Recently Imported into the United States. *AIDS Res Hum Retroviruses*. 2016;32(10-11):1046-1053. doi:10.1089/AID.2015.0272
10. Wiewel EW, Braunstein SL, Xia Q, Shepard CW, Torian LV. Monitoring outcomes for newly diagnosed and prevalent HIV cases using a care continuum created with New York city surveillance data. *J Acquir Immune Defic Syndr*. 2015;68(2):217-226. doi:10.1097/QAI.0000000000000424
11. Harawa NT, Bingham TA, Cochran SD, Greenland S, Cunningham WE. HIV prevalence among foreign- and US-born clients of public STD clinics. *Am J Public Health*. 2002;92(12):1958-1963. doi:10.2105/ajph.92.12.1958
12. Xiridou M, van Veen M, Coutinho R, Prins M. Can migrants from high-endemic countries cause new HIV outbreaks among heterosexuals in low-endemic countries?. *AIDS*. 2010;24(13):2081-2088. doi:10.1097/QAD.0b013e32833a6071
13. Schüller SC. Ethnic enclaves and immigrant economic integration. IZA World of Labor. 2016. Available at https://wol.iza.org/articles/ethnic-enclaves-and-immigrant-economic-integration/long Accessed on January 28, 2023.
14. Isphording IE. What drives the language proficiency of immigrants? *IZA World of Labor*. 2015. Available at https://wol.iza.org/articles/what-drives-language-proficiency-of-immigrants/long Accessed May 21,2020
15. Zong J, Batalova J. The limited English proficient population in the United States. Migration policy institute, Washington DC. 2015; e126
16. Okoro ON, Whitson SO. HIV risk and barriers to care for African-born immigrant women: a sociocultural outlook. *Int J Womens Health*. 2017;9:421-429. Published 2017 Jun 8. doi:10.2147/IJWH.S129355
17. Narasimhan M, Askew I, Vermund SH. Advancing sexual and reproductive health and rights of young women at risk of HIV. *Lancet Glob Health*. 2016;4(10):e684-e685. doi:10.1016/S2214-109X(16)30151-6
18. Berer M. HIV/AIDS, sexual and reproductive health: intersections and implications for national programmes. *Health Policy Plan*. 2004;19 Suppl 1:i62-i70. doi:10.1093/heapol/czh046
19. Askew I, Berer M. The contribution of sexual and reproductive health services to the fight against HIV/AIDS: a review. *Reprod Health Matters*. 2003;11(22):51-73. doi:10.1016/s0968-8080(03)22101-7
20. Amadiume I. Sexuality, African religio-cultural traditions and modernity: Expanding the lens. Codesria bulletin. 2006;1(2):26-8.

21. Airhihenbuwa CO, Webster JD. Culture and African contexts of HIV/AIDS prevention, care and support. *SAHARA J*. 2004;1(1):4-13. doi:10.1080/17290376.2004.9724822
22. Akwara PA, Madise NJ, Hinde A. Perception of risk of HIV/AIDS and sexual behaviour in Kenya. *J Biosoc Sci*. 2003;35(3):385-411. doi:10.1017/s0021932003003857
23. Butts JB, Hartman S. Project BART: effectiveness of a behavioral intervention to reduce HIV risk in adolescents. *MCN Am J Matern Child Nurs*. 2002;27(3):163-170.