Comprehensive Sexual Health Education in Zambia as a Modality for Sustainable Development and Gender Empowerment

Mark J. Johnson, M.S., Doctoral Student, Teachers College, Columbia University
mjj2143@columbia.edu
(917) 755-0546
525 West 120th Street
Thorndike Hall, Fl. 5, Box: 114
New York, NY 10027
Katerina M. DeVito, S.M., Doctoral Student, Teachers College, Columbia University
Shelby Graves, M.P.H., Postgraduate Researcher, University of North Texas Health Sciences Center
Robert E. Fullilove, Ed.D., Associate Dean, and Professor, Mailman School of Public Health, Columbia University

ABSTRACT

In September 2015, the United Nations unveiled the 2030 Agenda for Sustainable Development, which underscored the compulsory need for member states to work in concert towards the various Sustainable Development Goals (SDGs) to universally enhance the lives of everyone. These 17 SDGs are a set of intersectoral and interdisciplinary targets with corresponding indicators to measure desired outcomes. Here, we designed a comprehensive sexual health education curriculum to buttress SDG #3 “Good Health & Well-being”, SDG #4 “Quality Education”, and SDG#5 “Gender Equality” for Zambian stakeholders.

Currently, HIV/AIDS is still widespread throughout the Republic of Zambia with 12.9% prevalence among adults aged 15-49. Notwithstanding, more than 90% of adults report having heard of HIV/AIDS, only 35% have comprehensive knowledge of the disease. Our sexual health curriculum was designed for stakeholders within the Republic of Zambia to address several needs of the community, in addition to traditional goals of sex education whilst espousing gender empowerment strategies for young women and girls by belaboring the inherent rights guaranteed by the United Nations Declaration of Human Rights as well as the Zambian National Constitution.

Goals of the curriculum are to lower the incidence and transmission of HIV and other STIs; to prevent and reduce unplanned pregnancies, sexual assault, and rape; to increase HIV and STI knowledge; and to enhance literacy concerning safe sex and healthy relationships. As we developed the curriculum for the Zambian community, we leveraged cultural competencies during the content planning via consultations with stakeholders concerning distinct cultural characteristics, including laws related to religion, and same-sex relationships.

The resulting curriculum was entitled *L.i F.E., Life and Family Education*, a holistic, comprehensive sex education and relationship curriculum. The curriculum is comprised of eight modules covering health education, healthy relationship skills, and gender empowerment in

addition to the classical sex education topics of anatomy, puberty, conception, and contraception.

Our program evaluation plan is currently underway, and includes pilot testing the curriculum in Zambia followed by focus groups, and a sexual health literacy evaluation administered pre and post curriculum. Modifications to the curriculum shall be informed by the results of the evaluation plan.

Keywords: gender, sexual health, health education

INTRODUCTION

Despite numerous improvements in global health, HIV rates persist in many developing countries and is exacerbated by inadequate sexual education, gender inequalities, and low educational attainment. Sustainable development is a framework that allows interventions to not only impact an outcome of interest, but raise the quality of life of an entire community by impacting various social determinants. Zambia has endured a protracted struggle with high rates of HIV, gender disparities, poor educational outcomes, and a lack of comprehensive sexual health education.[1]

By exploring the demographics through a development lens, we can capture global health ellipses that classically trail such as high infant and maternal mortality, HIV incidence and prevalence, as well as diminished employment and educational attainment.[2] Further, by appraising a community or region through this expansive continuum, one may conclude an augmented consilience of a disorder or a series thereof, and the variables that may either fortify or frustrate these conditions. As we developed the curriculum for the Zambian community, we leveraged both human and cultural competencies during the content planning via consultations with stakeholders concerning language and other distinct cultural characteristics, including laws related to religion, and same-sex relationships.

This paper outlines the research, development, and evaluation plan for a holistic, sex education curriculum, designed for the Zambian population, informed by the United Nations Sustainable Development Goals (SDGs) addressing education and gender inequality.[3]

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[1] Zambia National AIDS Council. "GARPR Zambia Country Report 2013." 2014; World Bank. "Engendering Development: Through gender equality in rights, resources, and voice." *World Bank Policy Research Report.* New York: Oxford University Press, 2001; UN Educational, Scientific and Cultural Organization (UNESCO). "Education For All Global Monitoring Report 2011" *The Hidden Crisis: Armed Conflict and Education.* Paris: UNESCO, 2011.

[2] Sachs, J. *The Age of Sustainable Development*. New York: Columbia University Press, 2015.

[3] United Nations. "Transforming our World: The 2030 Agenda for Sustainable Development." New York: United Nations, 2015.

Zambia

The Republic of Zambia, formerly known as Northern Rhodesia, is a landlocked Sub-Saharan African state with a polyethnic population of 15,310,722 persons. This population is dolefully fixed to a considerable surplus loss of human capital secondary to advanced HIV infection / AIDS, high infant mortality, and high mortality rates; these figures are joined with a lower population growth rate as well as deviations of the population distribution by both age and gender that would otherwise be predictable.[4] With over 19 ethnic groups, Zambia maintains a continuum of tribal diversity that predominantly coexists peacefully. Linguistically, Zambians share some over 70 languages, the foremost being members of the Bantu family. Of these languages / dialects, English is still sustained as the official national language with 1.7 per centum of the population speaking either exclusive or augmented English.[5] Zambians are predominantly Christian, amassing 85.5 per centum of the total population.[6] Among these, it was determined that 75.5% of self-reported as either Protestant and 20.2% Roman Catholic, with less than 2.7 per centum representing the Bahá'í, Buddhist, Hindu or Muslim faiths.[7]

Education In Zambia, the educational system is modeled from the British system, which consists of seven years of primary, junior secondary and two years of upper secondary.[8] However various barriers such as selective examinations and elevated tuition premiums severely diminishes access, as only a slight minority enjoys consistent access to secondary education. The only free school is primary, with only a minority of the children that can regularly attend given the various opportunity costs involving education. These costs include a logistic modulus for caloric costs as distances between settlements and schools can be both varied and vast, school uniforms, and the mounting demand for child labor to contribute agronomically – offsetting those stricken by disease that are unable to perform laborious work[9]. These opportunity costs often present as severe pecuniary disadvantages that often offset the perceived value and universality of free education by community stakeholders.

Zambian emigration and expatriation is low compared to many other African countries, but is comprised primarily of the skilled and well educated. The minor aggregate of cerebral diaspora has considerable influence in both the Zambian market economy, but principally in the global fitness of the state – secondary to the limited human capital and dearth of didactic infrastructure for increasing skilled professionals in critical occupations such as those found in healthcare (doctors, other skilled healthcare staff).[10] Much of this is likely due to low investments made by

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[4] Zambia National AIDS Council, 2014.
[5] "UN Joint Programme on HIV/AIDS (UNAIDS)" *UNAIDS AIDS Gap Report*, 2016.
[6] UNAIDS, 2016.
[7] UNAIDS, 2016.
[8] Garcia, M., Pence, A., & Evans, J. *Africa's Future, Africa's Challenge: Early Childhood Care and Development in Sub-Saharan Africa*. Washington DC: The World Bank, 2008.
[9] Johnson, M. "Public health implications of Colombian Diaspora: Market Density as an Indicator for Food Insecurities." (Master's thesis, published 2015). Retrieved from Proquest Dissertations and Theses. (Accession Order No. 1589036).
[10] Garcia, M., Fares, J. *Youth in Africa's Labor Market.* Washington DC: The World Bank, 2008.

the government in education, even curiously low, as when compared to other Sub-Saharan nation states.
Despite Zambians high regard for education, currently almost half of the population is illiterate and numerous classrooms are without desks, chairs, and textbooks. In the rural areas, there are not enough buildings, and the nutritional needs for the children are neither being met, nor those of the staff whose modest income is often irregular.[11]

Gender Equality To best understand and reduce gender inequalities, gender responsive education is critical to fully satisfy the fourth sustainable development goal: quality education for all. This pedagogical modus addresses gender-based barriers to ensure that females and males can learn without being impeded by their respective dichotomy. Gender equitable education respects the differences based on gender and acknowledges that gender together with age, ethnicity, religion, language, and disability are all part of a learner's distinct identity.[12] This perceptive pedagogy fortifies and enables structures, systems and methodologies to be sensitive to all girls and boys, women and men, and ensures gender parity in education as a part of broad strategy to advance gender equality in society; continuously evolves to close gaps on gender disparity and eradicate gender-based discrimination.[13] Though in a crisis context, an unique assortment of barriers and protracted challenges are correspondingly pervasive, making gender equality in society and throughout education problematic.[14]

In recent years, evaluations of gender empowerment interventions have offered a promising vision for reducing sexual and gender-based violence (SGBV) worldwide.[15] Gender empowerment interventions feature unique approaches to both improving intimate relationships and preventing SGBV by addressing imbalances of power between males and females across multiple levels of social ecology.[16] Effective intervention strategies that address power imbalance employ key elements such as improving economic opportunities, addressing cultural

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[11] Mundy, K., & Paterson, S. *Educating Children in Conflict Zones: Research, Policy, and Practice for Systemic Change.* New York: Teachers College Press, Columbia University, 2008; Garcia, & Evans, 2008.
[12] UN Children's Fund (UNICEF). "It's Time to Listen to Us (Facilitator's Guide for Focus Groups)." *Youth Response to the Expert Group Meeting on the Elimination of all Forms of Discrimination and Violence against the Girl Child*. New York: UNICEF, 2008.
[13] Valerio, A. & Bundy, D. *Education & HIV/AIDS: A Sourcebook of HIV/AIDS Prevention Programs.* Washington DC: The World Bank, 2004;bKirby, D., Laris, B., & Rolleri, L. "Sex and HIV Education Programs: Their Impact on Sexual Behaviors of Young People Throughout the World." *Journal of Adolescent Health*, (2007) 40(3), 206-217.
[14] UNESCO, 2011; Haider, H. *Community-based Approaches to Peacebuilding in Conflict-affected and Fragile Contexts: Issues Paper.* Birmingham: International Development Department, University of Birmingham, 2009; Mundy & Paterson, 2011.
[15] Bourey, C., Williams, W., Bernstein, E., & Stephenson, R. "Systematic review of structural interventions for intimate partner violence in low- and middle-income countries: organizing evidence for prevention." *BMC Public Health,* (2007) *15*(1), 1-18; Gibbs, A., Washington, L., Willan, S., Ntini, N., Khumalo, T., Mbatha, N., & Jewkes, R. "The Stepping Stones and Creating Futures intervention to prevent intimate partner violence and HIV-risk behaviours in Durban, South Africa: study protocol for a cluster randomized control trial, and baseline characteristics." *BMC Public Health,* (2017) 171-15.
[16] Bourey, et al., 2015; Michau, L., Horn, J., Bank, A., Dutt, M., & Zimmerman, C. "Prevention of violence against women and girls: lessons from practice." *Lancet*, (2015) 385(9978), 1672-1684.

gender norms, and increasing female agency.[17] Gender transformative interventions operate on the premise that by reducing gender inequities, advancing women's autonomy, and improving communication between intimate partners will result in healthier relationships and reduced instances of violence.[18]

Gender empowerment interventions should also be wed with active participation of men and boys promoting equality and human rights for all women and girls.[19] Further, within the sensitive contexts of conflict states, least developed countries, and developing nations, there exceedingly exists a facultative need for both men and boys to actively partake the call for the rights of women, and to end violence against women in all forms.[20] This requisite of male participation is urgently required for within these fragile conditions, gender disparities and human rights violations are at both unbridled and profuse.[21]

Pregnancy Zambia's high fertility rate remains a discrete driver of rapid population growth, approaching 3 percent annually between 2000 and 2010.[22] Pregnancies are seemingly revived as the contraceptive prevalence rate in 2014 was only 49 per centum, leveraging a 5.67 births / woman total fertility rate for the Republic.[23] Current health expenditures included only 5% of the gross national product (GDP), with the aforementioned brain drain further contracting the already diminished physician density of 0.16 physicians per 1,000 inhabitants.[24] Further, the lack of institutional support from governmental investments has but guaranteed a diminutive hospital bed density of nearly 2 beds per 1,000 inhabitants.[25]

The country's total fertility rate has fallen by less than 1.5 children per woman during the last 30 years and still averages among the world's highest with almost 6 children per woman, principally secondary to the country's lack of universal access to family planning services, education for girls, and employment for women.[26] Zambia also exhibits wide fertility disparities based upon rural or urban location, education, and income. Poor, uneducated women from rural areas are increasingly predisposed to enter into wedlock younger than their urban counterparts, ensuring earlier birth, and often having more children across their lifespan.

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[17] Bourey, et al., 2015.
[18] Bourey, et al., 2015; Michau, et al., 2015.
[19] UN Educational, Scientific and Cultural Organization (UNESCO). "Role of Men and Boys in Promoting Gender Equality – Advocacy Brief." Paris: UNESCO, 2004.
[20] DFID. "Working Effectively in Conflict-Affected and Fragile Situations: Briefing Paper 1." *Monitoring and Evaluation.* London: Department for International Development, 2010; INEE. *INEE Guidance Notes on Teacher Compensation in Fragile States, Situations of Displacement and Post-Crisis Recovery.* New York: INEE, 2009; Swedish Agency for Development and Cooperation (SDC). *A Quick Guide to Conflict Sensitive Programme Management*. Stockholm: SDC, 2006.
[21] World Bank, 2001.
[22] UNAIDS, 2016.
[23] Garcia, Pence, and Evans, 2008.
[24]UNAIDS, 2016.
[25]UNAIDS, 2016.
[26] Rahman, M., Hoque, M., & Makinoda, S. "Intimate Partner Violence Against Women: Is Women Empowerment a Reducing Factor? A Study from a National Bangladeshi Sample." *Journal Of Family Violence,* (2011) *26*(5), 411-420.

HIV and STDs Despite the alarming birthrate, perilous HIV prevalence, and the universal call for equitable quality education, sexual health education still remains an unheeded topic of classical pedagogy. Notwithstanding contemporary efforts to curtail the rising population dynamic, Zambia's high birth rate of 41.8 births per 1,000 inhabitants is still climbing, and is coupled with a high infant mortality rate of 62.9 deaths per 1,000 live births.[27] Of these infant deaths, 57.3 deaths are females, while 68.3 deaths per 1,000 live births are males. Additionally, the maternal mortality rate remains to be approximately 224 deaths per 100,000 live births, and of those survived, the life expectancy at birth remains to be approximately 52.5 years, with women (54.1) surviving men (50.8) by 1.6 years.[28]

Athwart the continent, serodiscordant couples are commonly performing risky behaviors, according to a report by the Kenya National Bureau of Statistics Eastern Africa (KNBSEA). KNBSEA furthermore asserts that this prevalence is over 40-50% of those married with a positive HIV status is either espoused or partnered with someone who does not carry the virus.[29] Currently there are 1.2 million people living with HIV/AIDS in Zambia placing Zambia as one of the highest ranking countries with persons living with HIV/AIDS (9th overall ranking).[30] In 2015, there were over 640,000 women aged 15 or above living with HIV of the total 1.1 million adults with the virus.[31] Prevalence was also found to be higher among younger women (11.2%) than of the younger men (7.3%) aged 20-24.[32] Three focal explanations that expands this liability and high pravalence to females is that the female's first sexual encounter is typically younger, females have lower educational attainment than their male counterparts, and that because females typically marry younger, they often become espoused to an older partner who may already be living with the disease.[33] This underscores how gender inequalities can be directly jointed with poor education and outcomes, but also how these features may structurally predispose women to HIV infection.

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[27]World Health Organization (WHO). "Gender dimensions of HIV status disclosure to sexual partners: rates, barriers, and outcomes." Geneva, CH: World Health Organization, 2004; UNAIDS, 2016.

[28] WHO, 2004; UNAIDS, 2016.

[29] Chemaitelly, H., Shelton, J., Hallett, T., & Abu-Raddad, L. "Distinct HIV discordancy patterns by epidemic size in stable sexual partnerships in Sub-Saharan Africa." *Sex Transm Infect* (2012) 88: 51-57; Kenya National Bureau of Statistics (KNBS) and ICF Macro. "Kenya Demographic and Health Survey 2008–09." *Macro I.* Maryland: KNBS and ICF Macro, 2010.

[30] UNAIDS, 2016; King, R., Katuntu, D., Lifshay, J., Packel, L, Batamwita, R, et al. "Processes and outcomes of HIV serostatus disclosure to sexual partners among people living with HIV in Uganda." *AIDS and Behavior* (2008) 12: 232–243; Crum, N., Rittenburgh, R., Wegner, S., Tasker, S., Spooner, K., et al. "Comparisons of Causes of Death and Mortality Rates Among HIV-infected Persons: Analysis of the Pre-, Early, and Late HAART (Highly Active Antiretroviral Therapy) Eras." *Journal of Acquired Immune Deficiency Syndromes* (2006) 41: 194-200.

[31] "Zambia Country Report," World Health Organization (WHO) Accessed July 2017,http://www.who.int/countries/zmb/en/

[32] WHO, 2016.

[33] Zambia National AIDS Council, 2014; Fisher, J., Bang, H., Kapiga, S. "The association between HIV infection and alcohol use: a systematic review and meta-analysis of African studies." *Sexually Transmitted Diseases* (2007) 34: 856–863; Shuper, P., Joharchi, N., Irving, H., Rehm, J. "Alcohol as a correlate of unprotected sexual behavior among people living with HIV/AIDS: review and meta-analysis." *AIDS and Behavior* (2009)13: 1021–1936.

Problem Statement

HIV is prevalent in Zambia and continues to contribute to its low life expectancy of 51.8 years.[34] In Zambia, 1.2 million people live with HIV with a prevalence of 12.9% of total adults.[35] In 2015, there were 60,000 new HIV infections, and over 20,000 AIDS-related deaths.[36] Although status knowledge has increased in recent years, it is still under 50% with 46% women and 37% men who have undergone recent testing.[37] Further compounding the incidence, 90% of new HIV infections are the result of unprotected sex.[38] Furthermore, Zambia's high fertility rate continues to drive rapid population growth, averaging nearly 3% increase annually from 2000 to 2010.[39] The country's fertility rate averages among the world's highest, at 6 children per woman, largely due to the lack of access to family planning services, education for girls, and female unemployment.

Significance of the Study

For decades Zambia belabored high incidence of HIV that is exacerbated by low educational attainment, health disparities, and a spectra of inequalities.[40] Sustainable development provides an inclusive framework to address HIV, while impacting other determinants of health and quality of life indicators, such as gender equality, and healthy relationships. This paper outlines the development of a holistic sexual health education curriculum, designed for low-resource environments with content and activities culturally tailored to the social ecology of the Zambian community.

Purpose

To develop a culturally tailored, holistic sex education curriculum for at-risk populations in the Republic of Zambia, addressing not only traditional topics, but also other social determinants as outlined by the UN SDG #3 (good health and well-being), SDG #4 (quality education), and SDG #5 (gender equality).

Aims

Goals of the curriculum are:

1) To lower the incidence and transmission of HIV and other STIs
2) To prevent and reduce unplanned pregnancies, sexual assault, and rape
3) To increase HIV and STI knowledge
4) To enhance literacy concerning safe sex and healthy relationships

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[34] UNAIDS, 2016.
[35] UNAIDS, 2016.
[36] UNAIDS, 2016.
[37] UNAIDS, 2016; Dunkle, K., Stephenson, R., Karita, E., Chomba, E., Kayitenkore, K., et al. "New heterosexually transmitted HIV infections in married or cohabiting couples in urban Zambia and Rwanda: an analysis of survey and clinical data." *Lancet* (2008) 371: 2183-2191.
[38] Zambia National AIDS Council, 2014.
[39] Garcia, Pence, and Evans, 2008.
[40] Bundy, D., Patrikios, A., Mannathoko, C., Tembon, A., Manda, S., Sarr, B., & Drake, L. "Accelerating the Education Sector Response to HIV: Five Years of Experience from Sub-Saharan Africa." Washington DC: The World Bank, 2010.

5) To reinforce gender equality and to empower women and girls

METHODS

Study Design

This study involved the development of a sex education curriculum, tailored to the Zambian culture, informed by a literature review, and input by an expert panel.

Curriculum Development

We developed a holistic sex education curriculum, culturally tailored to the Zambian community, informed by SDG#3, SDG#4, SDG#5. First, we performed a literature review of peer-reviewed articles from academic journals, reporting on the development of healthy relationship, sex education, and HIV/STD curriculums. We generated a list of relevant key terms, and performed article searches in academic journal databases, including PubMed, MEDLINE, and Web of Science. We also conducted searches in ClinicalTrials database to find protocols of active trials relating to our keywords of interest. We also searched for materials on sex education curriculums designed for low-resource Sub-Saharan African communities, with similar demographics and culture to Zambia to further inform our curriculum design. We reviewed the resulting articles and materials collected during the review and identified key themes, tactics, and activities. Informed by the review, we wrote a draft of the curriculum.

Next, we convened a panel of experts in health education, international education, curriculum design, and global public health, as well as individuals with experience in Zambia or nearby geographic regions. We invited curriculum reviewers to openly share and discuss critiques and suggestions for improvement. Finally, we updated the curriculum according to the expert panel feedback, and presented this updated draft to a committee in Zambia, consisting of government officials, local healthcare workers, and community representatives.

RESULTS

The final curriculum we titled L.i F.E.; Life and Family Education, and consists of 8 lessons covering three main themes: 1) health education; 2) relationship skills; and 3) empowerment (see Figure 1). We chose to include relationship skills and empowerment lessons in addition to the traditional sex education topics of anatomy, puberty, conception and contraception because overwhelming research shows that to effectively lower transmission of HIV, STDs, and reduce unwanted pregnancies, programs must address related lifestyle factors, such as health behaviors and relationships.

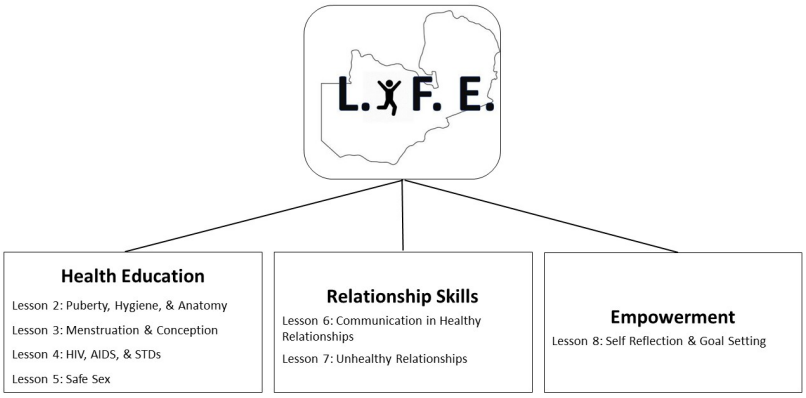

Figure 1. L.i F.E. Curriculum Overview

The curriculum opened with an introductory lesson, designed to build rapport among the students and instructor, and to brainstorm rules to create a safe space for participating learners. The lessons address relationship and communication skills in addition to traditional sex education topics of anatomy, puberty, conception and contraception. We designed lessons to be participatory, discussion, and activity-based. Each lesson is outlined with its purpose, materials, worksheets, handouts, and a reference form with supplemental material for the teacher.

Overall, we designed the curriculum to be flexible and adaptable to individual communities. Each lesson aims to encourage bonding among students and create a safe, cooperative atmosphere. This curriculum builds upon existing curriculums that have been designed and tested previously in other Sub-Saharan African states with similar characteristics of Zambia. Worksheets and handouts are adapted to use less paper, and scaffolding suggestions are provided for each lesson to guide teachers with lower resources. The curriculum also encourages teachers to tailor the material to their students' community and demographic. For instance, lessons recommend splitting class by age and/or sex for certain lessons so the materials discussed is not only pertinent to the participants, but students also feel comfortable discussing the material.

DISCUSSION

By constricting the programming aperture to the second, third, and fourth UN Sustainable Development Goals (SDGs) of the United Nations' 2030 Agenda, the program was positioned to become a comprehensive strategy that could support the following SDGs: "Good Health" (SDG#3), "Quality Education" (SDG#4), and "Gender Equality" (SDG#5) respectively. This was rendered through an evaluation and expansion process of current sexual health education modules, as it was stressed to design and deliver an efficiently succinct, yet effective curricula to Zambian shareholders.

The L.i F.E. curriculum was designed specifically for Zambia; the content and lessons were informed by specific country characteristics, such as the legality of homosexuality, and religious

beliefs of citizens. Consequently, some topics, such as premarital sex, are disapproved and require careful consideration and sensitivity in the curriculum when discussing safe sex. Furthermore, certain traditional gender roles are upheld in the culture, so we remained cognizant of this when developing the relationship and communication skills lessons.

Further, it was compulsory to shape this curriculum in such a condition to guarantee universality of program implementation regarding the uniformity of material and resource requirements on behalf of various local limitations of infrastructure, electricity, access to technology and other forecastable inconsistencies. By doing so, we can assure that stakeholders, docents, and educators have no discernable disadvantages when faced with program implementation.
We considered that the program may be conducted either in urban or pastoral conditions or in areas with power sensitivities. Here, by establishing these technological and cultural considerations as boundary conditions, we part great hope for the improvement of sexual health literacy in the extent of enhanced family planning, decreasing unplanned pregnancies and diminishing new incidences of HIV and other sexually transmitted infections. This program is bilaterally designed to also increase human rights knowledge through gender-neutral equitable exposure of the unalienable sexual rights for young women and girls, and their corresponding autonomy.

Future Direction Pilot testing and evaluation of the L.i F.E curriculum is current and ongoing. The evaluation plan involves the following components: 1) pilot testing; 2) focus groups with Zambian community members; 3) health literacy pre-test; and 4) health literacy post-test. Participants were recruited from local community health centers and enrolled in a pilot of the sex education curriculum. Details on this protocol and the results will be published shortly. Data collected, and feedback given during the pilot and evaluation will inform a future updated L.i F.E. curriculum.

CONCLUSION

From inception, our team found it imperative to design, develop, and pilot a comprehensive sexual health education curriculum that champions sustainable development through the promotion of indicators of sustainable development to global health. Through this, one could monitor the various vulnerabilities of stakeholders to the assorted obstructions to “good health”, equitable education, and how gender disparities vex and exacerbate these conditions. As with previous successes such as those involving the deployment of malarial nets and vaccinations to improve public health and economic throughput athwart Sub-Saharan Africa, gender equality enhances female educational attainment, discourages early marriage, and reinforces the rights and autonomy of all women and girls.[41] Further, the direct and indirect gains by equitable comprehensive sexual health education are untold: girls stay in schools longer, reaching comparable educational attainment of their counterparts, participate more meaningfully in the labor force, and through strategic family planning can position herself, her familial unit, and community with greater direct gains. Another economic consideration outside the context of

[41] Chuhan-Pole, P., & Angwafo, M. "Yes Africa Can: Success Stories from a Dynamic Continent." Washington DC , 2011: The World Bank; 2011; Sachs, 2015.

maternal autonomy and equitable education, is that by reducing the exposure of HIV/AIDS, the labor force will sustain healthier lives, ergo contribute more productively in the labor market, further fortifying future generations through indirect gains and a higher quality of life.

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