Biosocial Analysis of the DREAMS Program in Tanzania

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In Tanzania, the HIV epidemic is impacting many people throughout the country. However, this impact is not equally distributed among all people. Different areas in Tanzania suffer higher prevalence rates of HIV than others. In addition, females, especially adolescent girls and young women (AGYW), are at greater risk when it comes to HIV infection. These inequitable prevalence rates are caused by a number of factors, including but not limited to gender-based violence, lack of education, and involvement in transactional sex and sex work.

In order to address HIV in Tanzania, U.S.-based groups including President's Emergency Plan for AIDS Relief (PEPFAR), the Centers for Disease Control and Prevention (CDC), and ICAP have designed and implemented the DREAMS program, which aims to protect AGYW from HIV infection via empowerment, education, and testing services. While this is a multi-faceted intervention that aims to protect women and address more than just the biological factors that spread disease, there are possible unintended consequences that can lead to harm.

Keywords

global health • adolescent girls and young women (AGYW) • HIV/AIDS interventions • Tanzania

Introduction

Sub-Saharan Africa is widely known to be the current center of the HIV/AIDS epidemic. Thus, current interventions addressing HIV have focused on this geographical area. While there has been success in decreasing the prevalence of HIV in sub-Saharan Africa, an epidemic remains, specifically

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doi: 10.3998/ujph.6071

Conflicts of interest:
The author has no conflicts of interest to disclose.

among women aged 15–24, referred to as Adolescent Girls and Young Women (AGYW), who account for two-thirds of new infections (Saul et al., 2018). In Tanzania, HIV is the leading cause of adult mortality (*Tanzania - The World Factbook*, 2022). As of 2019, 1.7 million people in Tanzania were living with HIV (United Nations Children's Fund [UNICEF] United Republic of Tanzania, n.d.). Though HIV is widespread, only 60.6% of the population in Tanzania infected with HIV are aware of their positive status (ICAP, 2018). This proportion is far below the 90% goal that the Joint United Nations Programme on HIV/AIDS (UNAIDS) promotes.

Background

While this is a disease that impacts many, the distribution of HIV is far from equal. Geographically, prevalence rates of HIV vary greatly in Tanzania. Prevalence is as high as 11.4% in Njombe and 11.3% in Iringa and as low as less than 1% in Lindi and Zanzibar (ICAP, 2018). Other regions with the highest prevalence rates include Mbeya and Mwanza (UNICEF United Republic of Tanzania, n.d.). Furthermore, there is a significant sex-based disparity in the prevalence of HIV in Tanzania. According to the United Nations Children's Fund, "adolescent girls and young women have been disproportionately affected by new HIV infections compared to male counterparts" (UNICEF United Republic of Tanzania, n.d.). The HIV prevalence rate of women aged 15–49 is 6.0, while the rate for men within the same age group is only 3.3 (Joint United Nations Programme on HIV/AIDS [UNAIDS], n.d.). Though women in Tanzania are disproportionately infected by HIV, they are more likely to be aware of their positive HIV status (ICAP, 2018). However, this is likely caused by the prevention of mother-to-child transmission (PMTCT) programs. It is also possible that, due to the patriarchal society, men choose not to find out their status so they do not feel obligated to participate in safer sex practices.

There are a number of reasons for this disparity in HIV infections. These factors include "a history of sexually transmitted infections (STIs), alcohol use, multiple sex partners, early marriage, being out of school, inconsistent condom use, and engaging in transactional sex," which are associated with "vulnerability to HIV among AGYW" (Saul et al., 2018). Additionally, experiences with violence are also linked with this heightened HIV risk for AGYW. These risk factors can easily be connected with realities of life for AGYW in Tanzania. The prevalence of recent intimate partner violence (IPV) among women aged 15–49 is 29.6% (UNAIDS, n.d.). This rate is even higher among young women. For women aged 15–19, 30.1% have experienced IPV and for women aged 20–24, 34.2% have experienced recent IPV (UNAIDS, n.d.). For multiple sub-Saharan African countries, including Tanzania, one in three women report experiencing some form of sexual violence during childhood (Saul et al., 2018). Gender-based violence (GBV) is extremely common in Tanzania, accounting for part of the increased prevalence of HIV among women, specifically those who are younger.

In addition to GBV, there are other factors present in Tanzania that put women at an increased risk for HIV infection. While transactional sex is one of these risk factors, it is more complex than a simple unbalanced power dynamic. In Tanzania, women engage in transactional sex even if they are not poor (Lees, 2014). These relationships exist outside of the common narrative surrounding sex work and power dynamics. Studies have found that "financial or gift exchanges can ensure obligations between the partners and such transactions can also help women with social mobility and economic independence" (Lees, 2014). This less stigmatized form of sex work creates an

environment in which women are more likely to engage in transactional sex. Though this can have economic and social benefits, it does increase risk of HIV infection. Even if transactional sex isn't as stigmatized, unequal power dynamics between men and the women engaged in it create an environment in which asking for condom use is more difficult. In Tanzania, this general attitude toward transactional sex as being somewhat normal can potentially increase the number of women who participate, without altering the balance of power, which in turn increases the risk of HIV infection for women.

Several other factors leave AGYW in Tanzania at higher risk for HIV infection. As listed previously, early marriage, being out of school, and inconsistent condom use are also linked to increased risk for HIV infection (Saul et al., 2018). In Tanzania, three in ten girls are married before their 18th birthday (Odhiambo, 2020). Additionally, the median age of first birth for women in Tanzania is 19.8 years (President's Emergency Plan for AIDS Relief [PEPFAR], 2019). Early marriage is common in Tanzania, putting AGYW at an increased risk for HIV. Young birth age for mothers can also put the children at risk, especially if the mother is HIV-positive. While more women than men are aware of their HIV status, around 65%, that still leaves a great number of mothers unknowingly putting their children at risk. However, PMTCT interventions in Tanzania have managed to provide antiretroviral treatment to 84% of women (UNAIDS, n.d.). In terms of education, only 27% of girls complete upper secondary school in Tanzania (Campaign for Female Education [CAMFED], n.d.). Studies have shown that full-time education is protective for both sexes in terms of HIV infection (Lemme et al., 2013). The low proportion of girls completing school puts them at an increased risk for HIV. According to Joint United Nations Programme on HIV/AIDS (UNAIDS), only 55.1% of women aged 15–49 have their demand for family planning satisfied by modern methods (UNAIDS, n.d.). This proportion is much lower for AGYW aged 15–19, at only 40.9%. Even if AGYW attempt to engage in safe sex, there is no guarantee that their demand will be met. The combination of all these factors creates a dangerous environment for AGYW in which HIV infection is disproportionately likely compared to their male counterparts.

Response

DREAMS stands for Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe. As an intervention, it is designed to prevent HIV infection in sub-Saharan Africa, specifically targeting adolescent girls and young women (Centers for Disease Control [CDC], 2022). Within Tanzania, the program has functioned in nine different districts (PEPFAR, 2019). Specific priority groups within Tanzania have been identified as orphans and vulnerable children in school aged 10–14, AGYW aged 15–19 who are out of school/sexually active, and AGYW aged 15–24 engaging in transactional and commercial sex work (PEPFAR, 2019). The DREAMS intervention includes a core package of services that aim to: "(1) empower adolescent girls and young women and reduce their risk, (2) strengthen the families of AGYW, (3) mobilize communities for change and (4) reduce the risk of men who are likely to be male sex partners of AGYW" (Saul et al., 2018). Each of these categories includes different multi-faceted approaches to addressing HIV infection among AGYW in sub-Saharan Africa.

The first category of core services focuses on the empowerment of AGYW. These services include condom promotion and provision, oral Pre-exposure prophylaxis (PrEP), post-violence care (including post-exposure prophylaxis (PEP)), HIV testing services, expanding & improving

access to voluntary, comprehensive family planning services, and social asset building (Saul et al., 2018). This set of interventions primarily engages with the biological aspect of HIV prevention and treatment. However, the program does not simply diagnose and treat blindly. Consider the story of Hilda, for example, a teenage girl who joined the DREAMS program (ICAP Global Health, 2019). When she joined, she was unaware of her positive HIV status, but due to testing services made available by the DREAMS program, she was not only diagnosed but also counseled on her diagnosis (ICAP Global Health, 2019). This counseling helped Hilda disclose her diagnosis to her mother, who now acts as a "treatment supporter" (ICAP Global Health, 2019). Although this is only one story from one girl, this narrative reveals how the DREAMS program goes beyond testing and treatment within this category of services to help AGYW in a variety of ways.

The second category targets the families of AGYW in order to further prevent risk. Parenting/caregiver programs, which increase caregivers' knowledge, skills, and comfort with talking to their children about sexual health and monitoring their children's activities, are an important part of this sector (Saul et al., 2018). In addition, educational subsidies for transition to and attendance of secondary school have been proven to increase girls' attendance in school and lower risky behaviors. As education has been shown to be a protective measure, this directly responds to the biosocial environment. This category also promotes combination socio-economic approaches. For example, DREAMS includes social empowerment interventions such as discussion groups on gender-based violence/intimate partner violence (GBV/IPV) and couples communication, mentoring, and comprehensive, evidence-based HIV prevention curricula (Saul et al., 2018). On the economic side of things, the DREAMS program in Tanzania has an intervention called WORTH+, educating AGYW on financial literacy, small businesses, and income-generating activities (CDC, 2022).

The last two categories include interventions that aim to change communities and protect male sexual partners. One method of this is school-based HIV and violence prevention, "in order to provide accurate information, provide referrals to health centers for services not provided in school, and to build prevention skills among large numbers of young people in a community" (Saul et al., 2018). DREAMS also uses community mobilization to create support networks and address social norms that increase risk of HIV infection for AGYW by engaging boys/men, community leaders, and the community as a whole (Saul et al., 2018). While the majority of the intervention package focuses on addressing risks that disproportionately impact AGYW, the DREAMS program also provides medical services, such as HIV testing, HIV treatment, and voluntary medical male circumcision, that are targeted toward male sexual partners of the women in these communities. According to researchers from the London School of Hygiene and Tropical Medicine, "given the prevailing social norms regarding young people's sexual activity, there is increasing recognition of the importance of engaging the whole community, including parents, teachers, religious and local leaders, in order to prevent HIV among young people" (Lemme et al., 2013). The DREAMS program follows this advice, engaging AGYW, their families, their potential partners, and their communities as a whole.

The DREAMS intervention has been designed in a way that focuses on many features of the biosocial context of HIV in Tanzania. This layered approach aims to do more than treat HIV. While testing and treatment are fundamental parts of this initiative, this program does not end at the medical response. Instead, the program empowers AGYW and promotes economic independence, attempting to address the socio-economic structural factors that leave AGYW vulnerable. This program responds to the environment of HIV in Tanzania, which disproportionately impacts adolescent girls and young women. By understanding the risk factors that directly impact the chances

of AGYW contracting the virus, such as GBV/IPV, lower education levels, lack of safe sex practices, and lack of economic opportunities and literacy, DREAMS contends with the structures that exist and responds to them in a long-lasting and sustainable way. These layers effectively work to promote safe sex, keep girls in school, create economic opportunities, and change community-wide practices and sentiments.

Unintended Consequences

Despite the fact that the DREAMS program works effectively to address many aspects of the biosocial context and local moral world in Tanzania, there are still possible unintended consequences that can occur. One possible unintended consequence is an increase in gender-based violence and/or intimate partner violence due to the increased economic empowerment for women created by the DREAMS program. This increase in economic empowerment may cause men to feel threatened, resulting in a violent backlash (Bolis & Hughes, 2015). Increases in GBV/IPV can also be caused via increased use of violence as a method of control, in which "men may use violence as an instrument to disrupt women's market-oriented activity, seize women's income, or exert authority over managing" (Bolis & Hughes, 2015). This is not a guaranteed result of increasing women's economic empowerment, but it is a realistic one, given the misogynistic qualities of society in Tanzania and the already high rates of GBV and IPV.

Due to the government of Tanzania's direct involvement with this program, in addition to multiple U.S. agencies, this potential unintended consequence can result in structural violence. By creating conditions in which women may be at an increased risk for physical harm, the government risks worsened health outcomes, despite all the positive interventions that the DREAMS program provides. However, while the program does not directly outline this potential consequence, it does provide many resources for women who may face GBV or IPV. These resources eliminate the probability of creating structural violence for these groups of women. One example of these resources is the Intervention with Microfinance for AIDS and gender equity (IMAGE) program that some groups have implemented, which has been shown to decrease IPV among participants. This program incorporates "microfinance with a training curriculum on HIV prevention, gender norms, and gender-based violence" (Saul et al., 2018). The potential increase of GBV and/or IPV is a serious unintentional consequence for the DREAMS program coordinators to consider. Nonetheless, the program is currently avoiding creating a situation of structural violence by offering resources as part of the core package that aims to decrease this potential harm and protect women from violence.

Another harmful unintended consequence that can potentially occur with the DREAMS program in Tanzania is coloniality. The DREAMS program is a program that is funded by President's Emergency Plan for AIDS Relief (PEPFAR) and developed by Columbia University's ICAP Global Health, the Centers for Disease Control, United States Agency for International Development (USAID), and the Gates Foundation (United States Agency for International Development [USAID], 2021). While these organizations work with Tanzania's Ministry of Health, Community Development, Gender, Elders and Children, the program has been primarily developed by U.S.-based organizations. Additionally, the DREAMS program was not developed specifically for HIV in Tanzania, but for HIV in sub-Saharan Africa (USAID, 2021). This continuation of colonial-like power structures in which the U.S. is determining the goals, implementation tactics, and lessons without direct input from the intended beneficiaries or grassroots organizations can undermine

the effectiveness of the intervention and potentially create harm. The power dynamics that exist in the DREAMS program due to the colonial legacy inform the program's priorities based on the U.S. based social construction of knowledge. What is true, necessary, and valuable is determined by these institutions. This can prevent the DREAMS program from truly addressing the needs of the communities in Tanzania, because instead of allowing the people impacted by HIV or health disparities to lead this program, the program developers have made assumptions about what kind of help these people need and the capabilities they have when it comes to health interventions. Education is a fundamental part of this program, but when only teaching information designed by U.S. organizations, the DREAMS program falls short of adequately addressing the local moral world and moral complexity that may be unseen to these educators.

Conclusion

The DREAMS program in Tanzania works toward the empowerment of adolescent girls and young women in a way that promotes sustainable change within their communities. By keeping girls in school, teaching them about safe sex practices and gender-based violence, and working with families, the program attempts to make societal changes surrounding respect towards women, consent, and more. This is an important feature in the program because it responds to the biological *and* social factors that play into the disproportionate HIV infection of AGYW. However, the program is not without its faults, as there is a clear lack of active leadership by grassroots organizations or intended beneficiaries in the development and implementation of the program.

References

Bolis, M., & Hughes, C. (2015). *Women's Economic Empowerment and Domestic Violence*. Oxfam. https://s3.amazonaws.com/oxfam-us/www/static/media/files/Womens_Empowerment_and_Domestic_Violence_-_Boris__Hughes_hX7LscW.pdf

Campaign for Female Education (CAMFED). (n.d.). *CAMFED Tanzania*. https://camfed.org/us/what-we-do/where-we-operate/tanzania/

Centers for Disease Control and Prevention [CDC]. (2022, January 23). *CDC Tanzania DREAMS Program Empowers Adolescent Girls*. U.S. Department of Health and Human Services. https://archive.cdc.gov/#/details?url=https://www.cdc.gov/globalhealth/stories/2022/tanzania-dreams-program.html ICAP Global Health. (2018, December). *Tanzania HIV Impact Survey (THIS)*. Columbia University. https://phia.icap.columbia.edu/wp-content/uploads/2016/09/THIS_Final.pdf ICAP Global Health. (2019, June 3). *Shining a Light on a DREAMS Girl in Kagera, Tanzania*.

Columbia Mailman School of Public Health. https://icap.columbia.edu/news-events/shining-a-light-on-a-dreams-girl-in-kagera-tanzania/ Joint United Nations Programme on HIV/AIDS [UNAIDS]. (n.d.). *United Republic of Tanzania*. Retrieved April 17, 2022, from https://www.unaids.org/en/regionscountries/countries/unitedrepublicoftanzania

Lees, S. (2014, December 2). *Why are women at higher risk of HIV than men in sub-Saharan Africa?* Health Policy and Planning Debated. https://blogs.lshtm.ac.uk/hppdebated/2013/12/17/why-are-women-at-higher-risk-of-hiv-than-men-in-sub-saharan-africa/#:%7E:text=In%20sub%2DSaharan%20Africa%2C%20the,and%20lack%20of%20economic%20security

Lemme, F., Doyle, A. M., Changalucha, J., Andreasen, A., Baisley, K., Maganja, K., Watson-Jones, D., Kapiga, S., Hayes, R. J., & Ross, D. A. (2013). HIV Infection among Young People in Northwest Tanzania: The Role of Biological, Behavioural and Socio-Demographic Risk Factors. *PLOS ONE*, *8*(6), e66287. https://doi.org/10.1371/journal.pone.0066287

Odhiambo, A. (2020, October 28). *Victory Against Child Marriage in Tanzania*. Human Rights Watch. https://www.hrw.org/news/2019/10/25/victory-against-child-marriage-tanzania#:%7E:text=Girls%20and%20boys%20in%20Tanzania,consent%2C%20and%2018%20for%20boys.
President's Emergency Plan for AIDS Relief [PEPFAR]. (2019). *Tanzania DREAMS Overview*. U.S. State Department. https://www.state.gov/wp-content/uploads/2019/10/Tanzania-DREAMS-Overview.pdf

Saul, J., Bachman, G., Allen, S., Toiv, N. F., Cooney, C., & Beamon, T. (2018). The DREAMS core package of interventions: A comprehensive approach to preventing HIV among adolescent girls and young women. *PLOS ONE*, *13*(12), e0208167. https://doi.org/10.1371/journal.pone.0208167

Tanzania - The World Factbook. (2022, April 6). Central Intelligence Agency. https://www.cia.gov/the-world-factbook/countries/tanzania/

United Nations Children's Fund [UNICEF] United Republic of Tanzania. (n.d.). *Children and AIDS*. UNICEF. Retrieved April 17, 2022, from https://www.unicef.org/tanzania/what-we-do/hiv-aids#:%7E:text=With%201.7%20million%20people%20living,2014%20to%204.8%25%20in%202019

United States Agency for International Development [USAID]. (2021, June 1). *DREAMS: Partnership To Reduce Hiv/Aids In Adolescent Girls And Young*. https://www.usaid.gov/global-health/health-areas/hiv-and-aids/technical-areas/dreams