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Effect of women's Education and Income Levels on HIV Prevalence Among Women Accessing HIV Care and Treatment

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Abstract
The aim of this study was to determine the effect of women's education and income levels on HIV prevalence among women accessing care and treatment. The prevalence of HIV among Kenyan women is 6.6 per cent, more than twice as high as the prevalence among men (3.1%). Women in Murang'a County, Kenya, had a threefold higher risk of contracting HIV than men (2.4% vs. 7.8%). It is still unclear what specifically accounts for the high incidence rate among adult women, particularly in Murang'a County. A cross-sectional survey was used to determine social determinants of HIV prevalence among women in Murang'a County, Kenya. Respondents to the study were women getting HIV therapy at Murang'a County Level 5 Hospital in Kenya. The study selected 167 participants using a strict random selection methodology. The Statistical Package for the Social Sciences was used to conduct descriptive and inferential statistical analyses on numerical data. The findings indicated by odds ratio showed that education stage has no significant relation with HIV prevalence and that access to formal employment decreases HIV prevalence among women in Murang'a County. The study results are of help to the County government of Murang'a, where HIV is particularly prevalent. The results will also help to accelerate the realisation of Vision 2030 goals by illuminating the social determinants that contribute to HIV prevalence among women in Murang'a County. The study recommends programmes be launched that enhance women's education and training.

Key terms: Care, HIV, prevalence, treatment, women.

INTRODUCTION

For the past 40 years, the human species has been at risk due to the Human Immunodeficiency Virus (HIV), a serious worldwide health concern (Fauci & Lane, 2020). Around 6,000 women globally pass away from HIV and AIDS-related causes per week, according to Marsh et al. (2019). According to the Joint United Nations Programs on HIV and AIDS (UNAIDS, 2019), there are now significantly more women living with HIV. In 2008, there were an estimated 15.7 million women over the age of 15 living with HIV. However, by 2018 and 2022, those figures rose to 18.8 million and 19.6 million, respectively (UNAIDS, 2022). Nearly (80%) of young women who are HIV-positive reside in sub-Saharan Africa, according to the World Health Organization (2017).

Food insecurity is more common among low-income women, which has been linked to an increase in "transactional sex" among HIV-positive people and a subsequent decrease in antiviral medication use (Worthington & Krentz, 2005). Because of the link between HIV and hunger, women are at a higher risk than men for contracting the virus (Anema et al., 2009). The study found that a rise in potentially HIV-spreading behaviours was associated with a lack of access to antiretroviral drugs. Considering the widespread testing for HIV among women in sub-Saharan Africa, it is clear that preventing the transmission of the virus from mothers to their offspring is a major concern (Amin, 2015). According to research by Cluver et al. (2019), the fast spread of HIV/AIDS presents a severe threat to the potential realisation of sustainable development. The competence of its personnel and institutions, as well as the very basis upon which it may produce, deteriorates. Many aspects of society are hampered by HIV, including reduced life expectancy, a lack of trained workers, damage to the agriculture sector, and an increased risk of disease and death among major breadwinners. The result is a decline in living standards for the afflicted populations (Odugbesan & Rjoub, 2019). In certain nations, the epidemic has resulted in a 30-year increase in life expectancy (Worthington & Krentz, 2005).

HIV/AIDS is also a major killer in Kenya (Magadi et al., 2020). Moreover, Women's perspectives have not been considered despite global advances in HIV/AIDS treatment and prevention over the past 20 years, according to a study by Okoli et al. (2019). About 65 per cent of women have been newly infected with HIV since 1999, per research by Becker et al. (2018). The data provided bolster the argument that the HIV epidemic among women is a complicated phenomenon, and they add to the mounting body of proof indicating the HIV incidence rate among women is both complex and continually fluctuating. Most African countries have seen a decline in the HIV prevalence rate among women over the previous decade, according to official statistics (Cummings et al., 2021). The analysis suggests that the national decline in HIV prevalence may hide the disease's presence in some counties and demographic subsets.

For the last four years, the HIV prevalence trend in Murang'a has been increasing; the HIV prevalence in Murang'a county in 2019 was 4.8, in 2020 (5.0), in 2021 (5.4), and in 2022 (5.8). Consequently, HIV prevalence has been linked to high dependency, greater infection difficulties, higher financial burdens, and perhaps worse mortalities among women in the county. Nevertheless, there are minimal studies investigating this phenomenon in Murang'a County, leading to a paucity of empirical and conceptual knowledge. This study pinpointed sociocultural elements responsible for Murang'a County's high prevalence of HIV among women.

LITERATURE REVIEW

Prevalence of HIV/AIDS in Murang'a County

When compared to both male and female residents of neighbouring counties and regions with demographics comparable to Murang'a County, the prevalence of HIV among women in Muranga County was found to be significantly higher (7.8%), making it the primary focus of the research (Muiyuro, 2020). According to the findings of a study that looked at how the disease impacts women, despite the progress that has been made in the fight against HIV, the disease still has a disproportionate impact on women. The current analysis looked into the factors that influence the prevalence of HIV among women in Murang'a County, Kenya, as well as the implications of harbouring the virus based on these factors and the findings of a previous study.

Table 1: HIV Prevalence as per County in Central Kenya Region

County	Women's HIV prevalence	Men's HIV prevalence
Kirinyaga	3.8	1.8
Kiambu	5.6 %	2.0 %
Laikipia	5.3%	3.2%
Murang'a	7.7%	2.8%
Nyandarua	5.6%	2.0%
Nyeri	6.3%	3.3%

Source: (KNBS (2020)

Table 2: HIV Prevalence in Murang'a County

Year	Women	Men	County HIV prevalence
2016	7.2%	2.2%	4.8%
2018	6.2%	3.2%	4.7%
2020	7.7%	2.8%	5.2%

Source: KNBS (2020)

When compared to the rates in 2010, the United Nations General Assembly mandated a 90 per cent decrease in new HIV infections by the year 2030. At this time, the objective is to cut the number of new infections by 75 per cent by the year 20202. Like diabetes, HIV can be controlled but not cured because it is a chronic illness. As a result, even after the pandemic ends, the disease will become endemic, posing a risk until the end of time. No new cases have been reported recently. Infection with HIV is possible for women all around the world (Poteat et al., 2017). Even though there have been significant global gains in the prevention and treatment of HIV/AIDS over the past 20 years (Adimora et al., 2013), the narrative around the HIV pandemic among women has not changed. To wit: (Glynn et al., 2001). This result seems to confirm the theory that the HIV pandemic among women is dynamic and complex, suggesting that several causes are at play.

Muiyuro (2020) conducted an analysis of the prevalence of HIV in Zambia and found multiple contributing factors. Some of these factors include age, location, socioeconomic status, marital status, level of education, HIV knowledge, stigma indicator, risky sexual behaviour, number of partners, age at first sexual experience, and level of education. Sexual activity, several sexual partners, and/or having multiple sexual partners before the age of 30 are additional risk factors. According to UNAIDS (2016), the only way to realise the eradication of HIV around the world is to adopt a strategy that prioritises avoiding new infections. Mustanski et al. (2021) investigated numerous hypotheses regarding the origins of the AIDS epidemic. This study examines racial disparities in HIV infection rates among young men who identify as gay or bisexual to gain insight into the social and psychological factors at play. It does not stress the need for schooling or avoiding risky behaviours like sexual assault or adultery, but it does stress the significance of social networks in this regard. The study's discrepancies highlight the need for a more specific, culturally relevant education and awareness campaign to combat HIV among these at-risk populations.

Recent research in South Africa (George et al., 2020) reveals that young women and girls are still feeling the effects of the HIV epidemic. Women, regardless of their HIV status, have been shown to shoulder a disproportionate part of the burden of caring for AIDS patients and orphans. Assumptions that women are the principal carriers of the virus have led to the stigmatisation of women who test positive for HIV (Scully, 2018). Women living with HIV/AIDS are more likely than men to feel the pain and stigma of social isolation, according to the findings. This is in part because of the higher risk of HIV transmission among sexually active women than men (Scully, 2018). Females are more likely to report themselves as sexually active after testing negatively, according to the study. These results stress the significance of

addressing women's specific HIV-related issues. The massive gender disparity in HIV infection rates in Africa disproportionately affects women. So, it's important to set up programs in areas where women are having the most trouble that are intended to satisfy their own unique needs. According to Agot et al. (2010), women's vulnerability varies across regions of the world due to cultural and economic variables. Economic opportunities, health care, and education are all denied to women and girls due to gender inequality and discriminatory practices (UNAIDS, 2021). Having less power results in less respect, less safety, fewer opportunities, and less say over one's own body, all of which disproportionately affect women and girls.

The newly diagnosed cases of HIV will have a disproportionately negative effect on young women and girls in Sub-Saharan Africa, particularly those between the ages of 15 and 24. According to the findings of a research project that was carried out by Turan et al. (2011), the prevalence of HIV infection among pregnant women in urban and rural areas of Kenya does not differ significantly from one another. According to the conclusions of the study, if precautions are not taken, there may be as high as a 45% transfer rate from mothers to their children. This is the case if safety measures are not taken. According to research conducted by Pintye et al. (2017), HIV and AIDS continue to have devastating impacts on pregnant women and the unborn children they carry. It is absolutely necessary, in order to develop effective programs for HIV prevention and treatment, to have an understanding of the lived experience of people who are living with HIV. This is because of the devastation caused by the pandemic among women. Supporting the contention that young women should be the major focus of HIV prevention activities are data from several sources, including those given below (Ramjee & Daniels, 2013; Lazenby, 2012; Wekesa & Coast, 2015). There are a variety of social, cultural, and biological variables that contribute to the heightened vulnerability of young women to HIV infection. According to Ramjee and Daniels (2013), the likelihood of HIV transmission to females is increased when heterosexual couples engage in sexual activity. Women are more prone than men to experience difficulties because of these alterations.

Cultural and societal conventions make it harder for women in nations with a high HIV infection prevalence to take preventative measures. The purchase of condoms, the discussion of safer sexual practices with partners and instructors, and the pursuit of higher levels of education are all examples of decisions that Kenyan women may be apprehensive to make (Wekesa & Coast, 2015). The study's stated goal was to determine the rate of HIV infection in females across three different regions of Kenya. It was demonstrated that the conclusion stayed true even when there was a large age gap between the participants. Multiple studies have indicated that a significant percentage of teenage girls engage in sexual relationships with men at least ten years their senior and that a significant proportion of these relationships lead to marriage. It's crucial to account for the behaviours of both sexes in the fight against the HIV epidemic. Women bear a disproportionate burden of STDs, so this problem must be confronted head-on.

Social Cultural Factors and HIV Infections

Education contributes significantly to the incidence of HIV in society by assisting students in maintaining and forming safer sexual behaviours. Researchers in Zambia discovered that higher HIV rates were linked to lower average educational attainment in a study that examined the relationship between HIV rates in both urban and rural locations. According to Nkomba et al. (2009), precisely 10.7 per cent of people in rural areas and 15 per cent of people in urban areas were HIV positive. Marcus et al. (2019) identified individuals who would benefit from PrEP by using artificial intelligence and EHRs. These findings imply a potential role for EHR in the future in identifying at-risk persons and linking education to HIV transmission. Finding these individuals and educating them about PrEP improves the possibility of stopping HIV transmission. As AI becomes more prevalent, health education initiatives that leverage technology to reach high-risk communities will become increasingly important.

Higher levels of education are connected with a lower sickness burden and the majority of infectious diseases (World Health Organization, 2018). A smart strategy to start early, when children are still developing and at their most vulnerable, is to teach them with the purpose of influencing how they will make decisions in the future (World Health Organization, 2018). Making

the most of educational resources can also be accomplished through educating young about HIV, its modes of transmission, and preventive measures while also promoting regular testing (WHO, 2018). Increases in female education were found to be the most effective strategy in reducing the number of women and young girls at risk of contracting HIV due to social and economic disadvantages in evaluation studies of HIV risk variables in Ghana (Boasu et al., 2023). The study's authors found that girls who pursued more education had more family planning options and a decreased chance of marrying when still in their teens. The benefits of funding young women's education and development will be extensive.

While Ochako et al. (2011) and colleagues demonstrate an increase in high school girls' knowledge of HIV, they are unable to quantify the relative contributions of the several factors hypothesised to influence HIV prevalence. The existence of a link between sexual activity and academic success is a topic that many people debate. The Ochako et al. (2011) publication gives detailed data on the impact of increasing female attendance in school on HIV literacy, even if the association between education and HIV incidence rate is only mentioned in passing. Since the underlying causal relationships and their implications differ between populations, there is no commonly recognised correlation between sexual behaviour and academic achievement. Scientists apparently think that if they raise people's consciousness about HIV, they can slow the spread of the virus. Education and increased HIV awareness may discourage risky sexual behaviour, which could reduce the likelihood of HIV transmission among women, though further research is needed to confirm this.

A study by Naik et al. (2020) investigated the global dynamics of HIV transmission. Researchers evaluated the various prevention measures using the optimal control theory with the idea that greater knowledge and education may lessen the spread of HIV. In order to effectively stop the epidemic's spread, it is imperative to emphasise the value of complete approaches that involve treatment, education, and condom marketing. The value of interdisciplinary research into HIV transmission and prevention has been demonstrated through the use of mathematical models. Prostitution, Naik et al (2020), is a major contributor to the global spread of HIV. The results of this study stress the importance of including sex workers and other high-risk populations in HIV prevention efforts. The idea suggests that if widespread education and safe sexual practices were put into place, the problem might not be as severe. The model's incorporation of memory serves to highlight, once more, the significance of prior decisions in shaping the current dynamics of HIV transmission. Researchers have looked into the link between bacterial vaginitis (BV) and HIV transmission Mc Kinnon et al. (2019). Since BV alters vaginal flora and may make people more susceptible to HIV, hygienic sexual practices are critical for limiting the transmission of the virus. Comprehensive HIV prevention techniques that incorporate BV care are emphasised in this study.

It's usual to utilise the comparison between HIV and money to highlight how expensive HIV/AIDS is. The amount of disposable income a person has depends on both their employment condition and their poverty level. A person is more likely to engage in dangerous behaviours like drug misuse, starvation, and prostitution for money if they don't have access to safe housing and job prospects. Mc Kinnon et al. (2019) observed that because young women are unable to compete in the job market and get jobs, they become economically dependent on their fathers and, eventually, their husbands. No single study can generalise about what causes HIV infection in women because of disparities in geography and culture. The purpose of the study was to investigate whether or not HIV contributed to female joblessness. Researchers observed that after the death of a male breadwinner, several women in communities with high incidences of HIV resorted to selling sex to make ends meet. This was discovered using a qualitative technique based on in-depth interviews.

RESEARCH METHODOLOGY

Location of the Study

The study focused on Murang'a County-based women who used the comprehensive care clinic at Murang'a Level 5 Hospital to get HIV treatment and services. Muranga County was chosen because it has shown an increasing trend in HIV prevalence as compared to other neighbouring counties trend. Moreover, HIV

prevalence in the county exceeds the national average.

Research Design
The research adopted a cross-sectional design.

Population
The population of this study was 284 female patients who were accessing a comprehensive care clinic at the county's Level 5 hospital clinic in Murang'a County.

Sampling Procedure and Sampling Size
The Murang'a level 5 comprehensive care clinic has 284 women registered in total. The study arrived at a sample size of 167 female participants using the Yamane formula (Yamane, 1967): n = N / [1 + N (e) 2]. The accuracy e is calculated as the sum of the population size N and the sample size n.
$n = 284 / [1 + 284(0.05)^2] = 167$

Data Collection Procedures
The researcher and an assistant conducted interviews with research participants after they had completed the questionnaires. The study's data came from closed-ended questionnaires given to women who sought HIV treatment at the Comprehensive Care Clinic at Murang'a Level 5 hospital as well as those who attended support groups there.

Data Analysis
Qualitative and quantitative data collected were checked for completeness and then analysed thematically for the former and using descriptive and inferential statistics for the latter.

FINDINGS AND DISCUSSION
Education Level and HIV Prevalence
Results in Table 3 indicate that there was no statistically significant association between attaining secondary education and HIV prevalence in Murang'a County (χ^2=0.07, d.f = 1 p-value = 0.935). The odds ratio, which is a measure of attaining secondary education and having a positive or negative effect on HIV prevalence, was 1.032; this indicates that the likelihood of having HIV-positive prevalence upon attaining secondary education was 1.032. Since the odds ratio was greater than 1, it showed that increased access to secondary education positively impacted HIV prevalence in Murang'a County.

Table 3: Education Stage and HIV Prevalence

		Effect on HIV Prevalence		Total
Secondary school		Negative	Positive	
Yes	Count	16	48	64
	%	25%	75.%	100%
No	Count	21	65	86
	%	24%	76%	100%
Total	Count	37	113	150
	%	25%	75%	100%
	χ^2=0.07, d.f = 1 p-value = 0.935			
	Risk Estimate			
		Value	95% Confidence Interval	
			Lower	Upper
	Odds Ratio for Secondary School (Yes / No)	1.032	0.487	2.184
	For cohort Effect on HIV Prevalence = Negative	1.024	0.582	1.8
	For cohort Effect on HIV Prevalence = Positive	0.992	0.824	1.195

HIV Knowledge and HIV Prevalence
Results in Table 4 indicate that there was no statistically significant association between attaining HIV knowledge and HIV prevalence in Murang'a County (χ^2=2.029, d.f = 1 p-value = 0.154). The odds ratio, which is a measure of having HIV knowledge and having a positive or negative effect on HIV prevalence, was 0.423; this indicates that the likelihood of having

HIV-positive prevalence upon attaining HIV knowledge was 0.423. Since the odds ratio was less than 1, it showed that increased access to HIV knowledge inversely impacted HIV prevalence in Murang'a County.

Table 4: HIV Knowledge and HIV Prevalence

		Effect on HIV Prevalence		Total
HIV knowledge		Negative	Positive	
Yes	Count	32	106	138
	%	23%	77%	100%
No	Count	5	7	12
	%	42%	58%	100%
Total	Count	37	113	150
	%	25%	75%	100%
	χ^2=2.029, d.f = 1 p-value = 0.154			
	Risk Estimate			
		Value	95% Confidence Interval	
			Lower	Upper
	Odds Ratio for Knowledge level has helped to manage the disease (Yes / No)	0.423	0.126	1.423
	For cohort Effect on HIV Prevalence = Negative	0.557	0.267	1.161
	For cohort Effect on HIV Prevalence = Positive	1.317	0.809	2.143

Employment and HIV Prevalence

Table 5 reveals no statistically significant association between the nature of employment and HIV prevalence in Murang'a County (χ^2=3.607, d.f = 1 p-value = 0.058). The odds ratio, which is a measure of the nature of employment and having a positive or negative effect on HIV prevalence, was 0.311; this indicates that the likelihood of having HIV-positive prevalence based on the nature of employment was 0.311. Since the odds ratio was less than 1, it showed that increased access to formal employment inversely impacted HIV prevalence in Murang'a County.

Table 5: Employment and HIV Prevalence

	Effect on HIV Prevalence			Total
Employment		Negative	Positive	
Formal employment	Count	3	25	28
	%	11%	89%	100%
Self-employment	Count	34	88	122
	%	28%	72%	100%
Total	Count	37	113	150
	%	25%	75%	100%
	χ^2=3.607, d.f = 1 p-value = 0.058			
	Risk Estimate			
		Value	95% Confidence Interval	

			Lower	Upper
	Odds Ratio for Employment (Formal employment / Self-employment)	0.311	0.088	1.096
	For cohort Effect on HIV Prevalence = Negative	0.384	0.127	1.163
	For cohort Effect on HIV Prevalence = Positive	1.238	1.045	1.466

Poverty

Results in Table 6 indicate that there was a statistically significant association between poverty/unemployment and HIV prevalence in Murang'a County (χ^2=5.393, d.f = 1 p-value = 0.02). The odds ratio, which is a measure of exposure to unemployment/poverty and having a positive or negative effect on HIV prevalence, was 2.462; this indicates that the likelihood of having HIV-positive prevalence based on poverty/unemployment was 2.462. Since the odds ratio was greater than 1, it showed that increased levels of poverty/unemployment positively impacted HIV prevalence in Murang'a County.

Table 6: Poverty and HIV Prevalence

		Effect on HIV Prevalence		Total
Poverty/unemployment		Negative	Positive	
Yes	Count	17	29	46
	%	37%	63%	100%
No	Count	20	84	104
	%	19%	81%	100%
Total	Count	37	113	150
	%	25%	75%	100%
χ^2=5.393, d.f = 1 p-value = 0.02				
Risk Estimate				
	Value	95% Confidence Interval		
		Lower	Upper	
Odds Ratio for Poverty or unemployment led to HIV infection (Yes / No)	2.462	1.138	5.329	
For cohort Effect on HIV Prevalence = Negative	1.922	1.114	3.316	
For cohort Effect on HIV Prevalence = Positive	0.781	0.614	0.993	

Marital Status and HIV Prevalence

Table 7 shows no statistically significant association between being married and HIV prevalence in Murang'a County (χ^2=0.072, d.f = 1 p-value = 0.788). The odds ratio, which is a measure of exposure to marriage and having a positive or negative effect on HIV prevalence, was 0.9; this indicates that the likelihood of having HIV-positive prevalence based on being married was 0.9. Since the odds ratio was less than 1, it showed that marriage negatively impacted HIV prevalence in Murang'a County.

Table 7: Marital level and HIV Prevalence

		Effect on HIV Prevalence		
Married		Negative	Positive	Total
Yes	Count	23	73	96
	%	24%	76%	100%

No	Count	14	40	54
	%	26%	74%	100%
Total	Count	37	113	150
	%	25%	75%	100%
χ^2=0.072, d.f = 1 p-value = 0.788				
	Risk Estimate			
	Value	95% Confidence Interval		
		Lower	Upper	
Odds Ratio for Married (Yes / No)	0.9	0.418	1.941	
For cohort Effect on HIV Prevalence = Negative	0.924	0.52	1.642	
For cohort Effect on HIV Prevalence = Positive	1.027	0.846	1.246	

Discussion

There was no statistically significant effect of education on HIV prevalence in Murang'a County. The positive odds ratio showed that the education stage increases the odds of HIV prevalence in Murang'a County. Further, HIV knowledge had an inverse effect on HIV prevalence in Murang'a County. The study concurs with a study done in South Africa suggests that young girls and young women remain at the epicentre of the HIV pandemic, with surveillance data indicating high HIV prevalence in women (George et al., 2020). There is, however, evidence that regardless of whether women are living with HIV, generally, they bear a disproportionate burden of care for others who are infected or dying of AIDS, as well as the orphans left behind (Goodman et al., 2017). This indicates that women have been adversely affected by the onset of HIV, and these previous findings support the need for this study.

Women with HIV/AIDS have been positioned as a latent source of infection, capturing liability and blame that leads to a highly stigmatised and discriminated life (Scully, 2018). The study further indicates that women living with HIV/AIDS are more vulnerable to enduring a painful, shameful life of exclusion. This is attributed to the virtue of being women and partly because, in the event of sex, they are biologically more vulnerable to HIV infection (Scully, 2018). The study further points out that the risk of becoming positive after a heterosexual act is estimated to be twofold higher for women. These findings necessitate redress of women and their particular concerns as pertains to HIV.

According to UNAIDS (2021), for 2012-2018, there is a positive association between the stage of education and condom use among adolescent girls. Girls who completed secondary School in Eastern and Central Africa recorded higher condom use, which protected them from HIV as they transitioned to adulthood (UNAIDS, 2021). The study shows that without sex education, which should form part of the curriculum in higher education, girls lack basic information about sexual health and HIV transmission. This study was conducted in Eastern and Southern Africa. However, there is a need to have more specific data for Kenyan women since populations vary in terms of geode.

There was no significant association between the form of employment and HIV prevalence in Murang'a County. Since the odds ratio was less than 1, then access to formal employment decreases HIV prevalence in Murang'a County. Further, there was a statistically significant association between poverty and HIV prevalence in Murang'a County. The results agreed with the assertion that limited economic activities, opportunities, and periods of homelessness have been linked to unsafe sexual behaviour, such as the exchange of sex for money, food, drugs, housing, and security. Poverty is related to riskier health behaviours among poor families. The study is consistent with the research that shows that poverty exposes women to risky sexual behaviour, such as substance use that reduces the likelihood of using condoms and transactional sex (Worthington & Krentz, 2005). Ultimately, these practice places individuals at high risk of HIV infection. Kaushik (2020) observed that unmarried women who are not employed do not have breadwinners and hence sell their bodies to earn a living, which can lead to HIV infection. The study further pinpoints that in conditions of unemployed women, HIV risk becomes a

low priority among people's daily concerns. However, the study cannot be used to make a conclusion on the causal relationship between HIV prevalence and women's unemployment. The researcher did not interview the unemployed women in marriage and outside marriage to know whether their unemployment was a cause of HIV infection.

Trends in current data on new HIV infections suggest that the incidence of HIV is rising among married women and girls worldwide, with unsafe and unprotected heterosexual intercourse being the most common mode of HIV transmission in women (Azim et al., 2015). This is attributed to the power imbalance that makes most women in marital relationships unable to negotiate for safer sex, and this puts women at risk of HIV infection (Tanser et al., 2011). The study states that the situation is made worse because it is the husband who decides when to sleep with the wife or spend a night elsewhere with no room for questions from the wife (Stockman et al., 2013).

CONCLUSION AND RECOMMENDATIONS

Conclusion: In conclusion, the findings showed a statistically significant relationship between education level and HIV prevalence among women seeking HIV care and treatment in a level five hospital comprehensive care clinic in Murang'a County, Kenya. The study concluded that increased access to secondary education inversely impacted HIV prevalence in Murang'a County. Moreover, having HIV knowledge among patients positively impacted the prevalence of HIV. The study found that increased access to formal employment inversely impacted HIV prevalence in Murang'a County. Further, it showed that increased levels of poverty/unemployment positively impacted HIV prevalence in Murang'a County. The conclusion was arrived at that increased access to formal employment and decreased poverty levels would positively impact HIV prevalence in Murang'a County.

Recommendations: The study concluded that increased access to secondary education inversely impacted HIV prevalence, and having HIV knowledge among patients positively impacted the prevalence of HIV. The study recommended that the management of health facilities should continuously engage women accessing HIV care services in public facilities. This will be possible through the involvement of relevant stakeholders who are directly or indirectly involved in the mitigation of HIV transmission across different ages. Moreover, the Ministry of Health at national and county health departments ought to avail health care providers who are skilled enough to provide requisite support deemed appropriate for suppression of HIV spread and culturing positive behaviour change amongst those who are under HIV treatment. The conclusion arrived at for the second objective was that increased income levels positively impacted HIV prevalence in Murang'a County. The study, therefore, recommends that the government should launch programmes that boost the income levels of its citizens, as this would reduce HIV prevalence. Further, it showed that increased levels of poverty/unemployment positively impacted HIV prevalence in Murang'a County. The conclusion was arrived at that increased access to formal employment and decreased poverty levels would positively impact HIV prevalence in Murang'a County. Consequently, there is a need for improvement of employment levels and other income-generating activities, as these aspects curb the spread of HIV, which would aid in curbing HIV spread and minimising the stigma associated with HIV.

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