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Enactment of Gender Roles and Their Implications on Viral Load (VL) Testing Appointments and Drug Adherence among Adolescent Boys on Anti-Retro-Viral Therapy (ART) in Siaya County of Kenya

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Abstract:

There has been a significant decline in HIV-related deaths by 51%, down from between 970 000 and 1.8 million in 2010 to approximately 630 000 in 2022 except for the adolescent boys. Viral Load testing and drug adherence are recommended to monitor ART failure and reduce HIV-related mortalities. Whereas gender norms ascribe specific roles to men, which have been documented to have negative outcomes on their health, whether this has also extended to adolescent boys and affected their VL testing appointments and drug adherence remains underexplored. This insight is significant in high HIV prevalence areas that have recorded differentials in HIV-related deaths among this population, such as Siaya County of Western Kenya. This paper used a cross-sectional survey to investigate the implications of gender role enactment on VL testing and drug adherence among adolescent boys on ART in Siaya County, Kenya. A sample of 263 boys on ART was interviewed, and two focus group discussions and in-depth interviews were held with the boys, while three key informant interviews were conducted with healthcare practitioners and government officers. Enactment of gender roles has been found to interfere with the uptake of VL testing and drug adherence since the boys often take up tough manual jobs to fend for the family as a priority over medication. It is concluded that the breadwinner role being played by the boys seriously affects the honouring of VL testing and taking of ART drugs; hence, interventions aimed at cushioning the families housing the boys should be initiated.

Keywords: Adolescent boys on ART, Anti-Retro-Viral Therapy (ART), drug adherence, enactment of gender roles, Siaya county, VL testing appointments

1. Introduction

Significant achievements have been made in the immunodeficiency virus (HIV) and acquired immunodeficiency Syndrome (AIDS) response, with a decline in HIV-related deaths by 51%, down from between 970 000 and 1.8 million in 2010 to approximately 630 000 in 2022 (UNAIDS, 2023). However, adolescents across the globe seem to be the undeserving population in the gains being realised in the HIV and AIDS treatment endeavors, with approximately between 33.1 million and 45.7 million people living with HIV in 2022, out of whom 1.7 million were adolescents aged 10–19 years (UNICEF, 2023; United Nations Programme on HIV and AIDS [UNAIDS], 2023). In addition, while recent statistics show a tremendous decline in HIV-related deaths by 51%, down from between 970 000 and 1.8 million in 2010 to approximately 630 000 in 2022 (UNAIDS, 2023), more adolescent boys have succumbed to HIV - related deaths than their female counterparts in the same period (Stannah et al., 2023). Described by the World Health Organisation (WHO, 2017) as persons aged between 15 and 19 years, between 260000 and 680000 adolescents were newly infected with HIV in 2019 (UNICEF, 2023). A number of studies (Enane et al., 2020; Dougherty et al., 2022; Mushy et al., 2024) state that compared with adults, adolescents are less likely to be tested for HIV, with those who test positive for HIV being less likely to be linked to treatment, while those on ART are less likely to be virally suppressed. Dougherty et al. (2022) note that out of the 1.75 million adolescents aged 10–19 years with HIV globally, only 54% were receiving ART in 2020. Recent data indicate that only 27% of adolescent girls and 16% of adolescent boys aged 15–19 years in Eastern and Southern Africa were tested for HIV and received the result in the past 12 months (Dougherty et al., 2022). While men's poor uptake of healthcare has been attributed to the enactment of various gender roles, how this might have extended to adolescent boys on ART in the continuum of HIV response should be investigated.

Gender roles refer to the appropriation of duties preferred for women and men in society (Lomazzi & Seddig, 2020; Leddy et al., 2021). The traditional norms of society have constructed gendered specialization of tasks, where the male is the breadwinner, and the female is the homemaker (Bolzendahl & Myers, 2004). According to Del Pilar Sánchez-López, Cuellar-Flores and Dresch (2012), gender roles are understood as shared expectations applying to individuals on the basis of their identified gender and attitudes towards individual views of appropriate duties for women and men. Unlike sex, a set of biological attributes, the concept of gender derives from socially constructed cultural conventions, roles, and behaviors ascribed to people of the female and male, or other sexes (Godoy et al, 2022). According to Coen and Banister (2012), socially and culturally constructed gender norms that determine the roles and opportunities afforded to men and women form strong structural determinants of health with major yet different implications for males and females. However, how gender roles as structural determinants of health have influenced drug adherence and VL testing among adolescent boys on ART in a high prevalence HIV area such as Siaya County of Kenya has not been highlighted.

Anti-Retro-Viral Therapy (ART) adherence is described as the extent to which a patient adopts behaviour changes which correspond to agreed recommendations from the clinician (Adino, 2016). The World Health Organisation (WHO, 2003) asserts that ART adherence involves taking the 'right drugs and dosage at the right time in the right way' (pp. 3). The best response to ART, including sustained suppression of HIV viral replication and improved virological and clinical outcomes, is attained when adherence is 100% (Legesse & Reta, 2019; Zurbachew, Hiko, Bacha & Merga, 2023). Adino (2016), however, suggests that HIV patients are required to achieve an adherence level of not less than 95% to avoid treatment failure and to maximize treatment benefits. Whereas studies that have focused on determinants of ART adherence among adolescents in Siaya County (Adino, 2016, 2020; Luseno et al., 2017; Owoko, Olang'o & Nyambega, 2019; Obiero, 2023) have listed distance to the health facility, lack of family support, side effects of drugs, and poor caregiver support as some of the barriers of ART adherence. Gender roles as determined by prescribed gender norms have not been investigated. This study, therefore, sought to answer the question: What are the implications of enactment of gender roles on drug adherence among adolescent boys on ART in Siaya County of Western Kenya?

The central aim of HIV and AIDS treatment is to suppress viral load and ultimately increase survival, improve quality of life, and reduce HIV transmission among patients (WHO, 2014). A patient is virally suppressed when the disease in the blood is <1000 copies/ml of plasma (WHO, 2016; Mushy et al, 2024). Therefore, Monitoring VL among patients on ART through viral load testing is critical (Katumba, 2019). According to Mushy et al. (2024), VL testing among adolescents is crucial for the early identification of treatment failure for patients needing intensive adherence counselling and prevents the occurrence of drug resistance. Kenyan national guidelines recommend that unsuppressed patients should receive three enhanced adherence counselling (EAC) sessions at monthly intervals for 3 months, followed by a repeat of the VL test, and thereafter, a switch to second-line ART if persistence in unsuppressed VL is found (NAS COP, 2018; PEPFAR, 2018). Studies that have been conducted in Siaya County and its environs on barriers towards VL testing uptake have tended to take medical perspectives and have revealed that turnaround times for test results, limited trained laboratory staff or testing expertise, difficulties in transporting samples to centralized laboratories, and the inability to monitor VL more frequently than national guidelines as limiting factors (Rabkin et al., 2020; Qian et al., 2022; Obiero, 2023). The implications of gender-prescribed roles on VL testing uptake, especially among adolescent boys, have not been focused upon in Siaya County, a high HIV prevalence area in Kenya. This paper, therefore, sought to answer the question: What is the implication of the enactment of gender roles on viral load testing among adolescent boys on ART in Siaya County of Western Kenya?

In Kenya, there exist gender differences among youths who have succumbed to AIDS-related fatalities over the years. For instance, Siaya County, an area with the highest HIV prevalence rate of 21.45% during 2015 – 2020, recorded 250 adolescent deaths (150 Males; 100 Females) in 2018 despite the patients being on ART (NAS COP, 2020). The NAS COP, the body charged with monitoring the HIV pandemic in Kenya, additionally records that by the end of 2020, the prevalence rate in Siaya County stood at 15.3%, higher than the national rate of 4% with HIV morbidity cases for 14 – 19 years old standing at 1641 (Females=846; Males=795) and 248 (NAS COP, 2020). There is a very high prevalence of orphanhood in the study area that is taken care of by relatives, with one out of five caretakers being 55 years old in places such as Nyang'oma Sub Location (Nyambedha, Wandibba & Aagaard-Hansen, 2003). This has in turn put pressure on the caretakers in terms of the provision of food, education and basic needs to the orphans (Nyambedha & Aagaard-Hansen, 2010), thereby forcing the children to engage in child labour for purposes of fending for the households (Ayieko, 2003; Olang'o, Nyamongo & Nyambedha 2012). While enactment of gender roles as constructed traditional norms has been associated with poor health outcomes among adult men, a paucity of knowledge exists with regards to whether adolescent boys in areas such as Siaya County of Kenya have endorsed the same and the implications of such endorsement on ART adherence and VL testing on them. This study stands to provide additional knowledge on the role played by gender roles on ART adherence and VL testing uptake by adolescent boys.

2. Methodology

2.1. Research Design

The study adopted a descriptive cross-sectional design with mixed methods, utilizing both quantitative and qualitative methods of data collection and analysis (Poth & Munce, 2020). This design often enables a researcher to use a quantitative approach to measure some aspects of the phenomenon under study and qualitative methods for others (Dawadi, Shrestha & Giri, 2021). The advantage of this design is that it provides complementarity in data collection, analysis and interpretation (Shorten & Smith, 2017).

2.2. Study Area

The study area was Siaya County, which occupies 2,530.5 Km² of the Lake region of Kenya. The County lies between latitudes 00 26' South and 0 0 18' North and longitudes 33 0 58' and 34 0 33' East (County Government of Siaya, 2013). The study was done across six sub-counties: Gem, Bondo, Alego-Usonga, Ugunja, Rarieda and Ugenya. The choice of the study area was guided by the fact that between 2015 and 2019, it recorded the highest HIV prevalence in Kenya, standing at 15.3% by the end of 2020, 4 times higher than the national prevalence rate of 4% (NASCO, 2023). This area is predominantly occupied by the Luo people, who practise stringent gender norms where men are required to be breadwinners and heads of their families (Ochola-Ayayo, 1976). Previous studies (see Ayieko, 2003; Nyambedha et al., 2003; Olang'o et al., 2012) document a high prevalence of orphanhood in this area, forcing children to live with their elderly relatives whom they end up taking care of in terms of food provision and general upkeep.

2.3. Study Population and Sample

The study targeted 795 adolescent boys with high viral load aged 14–19, as contained in KENAPHIA (2023) records as of December 2022, alongside seven comprehensive care-in-charge (CCC), the County AIDS/HIV and STI Coordinator (CASCO), six sub-county AIDS Coordinators (SCACOs), and fourteen Public Benefit Organizations (PBO) officials.

This study adopted Yamane's (1967) formula to calculate the sample size of adolescent boys with high viral load on ART, as shown below:

$$n = \frac{N}{1+N(e)^2}$$

Where:

n = the sample size,

N = the population size, and

e is the level of precision (0.05).

The calculated sample size for adolescent boys with high viral load on ART was 265. Using the stratified proportional technique, the adolescent boys were distributed in each of the six sub-counties based on each administrative unit's population (of the adolescent boys under ART), as illustrated in table 1. Similarly, the study purposively selected healthcare practitioners and government officials for interviews and FGDs until saturation was attained.

Sub County	Population	Sample Size	Percent
Alego -Usonga	118	40	15
Bondo	188	63	23.8
Gem	92	31	11.7
Rarieda	227	76	28.7
Ugenya	92	31	11.7
Ugunja	78	27	10.1
Total	795	265	100

Table 1: Distribution of Sample Size

2.4. Instrumentation, Validity and Reliability

The study administered structured questionnaires consisting of both closed and open-ended questions to collect data from the sampled adolescent boys alongside in-depth interviews and focused group discussions (FGDs) guide. The interview schedule, as well as the FGD guide, was also used to gather information from caregivers and government officials in charge of HIV and AIDS treatment in the county.

Construct and content validity index (CVI) was employed to ensure the validity of the study instruments. For purposes of ensuring construct validity, we took care through operationalization of the research variables, while for content validity index (CVI), four experts from the University were asked to rate each question item in terms of its relevance to the underlying constructs using a 4-point ordinal scale: 1=not relevant; 2=somewhat relevant; 3=quite relevant; 4=highly relevant. We adopted the formula stipulated by Davis (1992):

$$I-CVI = (\text{agreed item}) / (\text{number of experts}).$$

This yielded a CVI of .88, which is a high rating in terms of instrument relevance to the research phenomenon.

On the other hand, reliability was checked through a split-half method using data collected during the pilot study from 79 adolescent boys on ART who were thereafter excluded from the main study. With the aid of SPSS version 22, the computed correlation coefficient was 0.86, signifying that the instrument was of high reliability.

2.5. Data Analysis and Presentation

Data obtained using a questionnaire was analysed using descriptive and inferential statistics with the aid of SPSS version 21. Descriptive statistics enabled the generation of frequencies and percentages, which was essential for interpreting quantitative results.

Similarly, thematic analysis was used to analyse qualitative data obtained from open-ended questions, interviews and FGDs.

3. Results and Discussions

This study sought to determine the influence of the endorsement of masculine identities on viral load suppression among adolescent boys on ART. Questionnaires were administered to a sample of 265 adolescents, and interviews and focus group discussions were also conducted for data collection purposes. Out of 265 questionnaires that were administered, 263 were accepted and filled out by the researchers as validly filled out.

3.1. Results

3.1.1. Socio-Demographic Characteristics of the Study Population

The results showed that 23.2% of the sampled boys were 14 years old, while 19% were 15 and 18.6% were 16 years old. This suggests that the majority (60.8%) of the boys in the current study were 16 years old and below. Similarly, part of the results showed that the majority of the adolescent boys (53.6%) had lost at least one parent or were total orphans living with grandparents and other relatives.

3.2. Gender Roles Enacted

This study enquired from the sampled adolescent boys to indicate the types of duties that they perform or are often called upon to play in the society. Table 2 presents the distribution of enacted duties by adolescent boys.

	Gender Role	Yes (%)	No (%)	Mean	Std. Dev
i.	Providing labour in family farms	91.9	8.1	1.11	.355
ii.	Fishing expeditions	53.0	47.0	1.32	.501
iii.	Boda Boda riding	50.9	49.1	1.30	.299
iv.	Sand/quarry harvesting	33.8	66.2	1.66	.474
v.	Helping out in the farm, workshop, shop, and others	95.1	4.9	1.05	.217
	Overall Mean			1.288	.369

Table 2: Enacted Gender Roles
Interpretation Key: 1.00 – 1.44 = Yes; 1.45 – 2.00 = No

Table 2 illustrates that the adolescent boys in the current study are called upon on a number of occasions to undertake various tasks such as providing labour in family farms, workshops/shops, and fishing expeditions, among others (Mean=1.288; SD=.368). These findings illustrate that adolescent boys are indeed expected to perform specific duties based on their gender on behalf of the family. Table 2 additionally illustrates that helping out on the farm, workshop, shop, and others (95.1%; Mean=1.05) and providing labour in family farms (91.9%; Mean=1.11) are the two outstanding duties that adolescent boys are often expected to perform.

The findings in table 2 highlight the fact that there are specific roles that the adolescent boys are assigned in this particular society. Similar findings emerged during FGDs with selected boys, where one of the discussants indicated that if faced with the dilemma of seeking medication and joining income-generating assignments, he would choose the latter. This is what was stated by a 17-year-old boy.

During FGDs with some of the selected boys, it was revealed that most of the adolescent boys in this study area prioritize taking up income-generating activities for purposes of fending for their families instead of honouring medical appointments for drugs or VL testing. For instance, one 16 years old boy stated:

I often miss out on honouring medical appointments to attend to Pango squad (Boda Boda – motorcycle transportation services), Ywayo sut (fishing expeditions), and Kunyo Milu or Domba (mineral mining). Likewise, to a number of my friends, I must do this for me and our children to get what to eat. My small siblings and I live with our old grandmother; hence, we must do almost everything to make sure that food and other essential items at home are available.

The statement attributed to the 17-year-old adolescent boy suggests that the need to satisfy gender norms by making sure that he performs his role to the family is given priority over medication. The boys in the study area seem inclined to adhere to specific norms that describe their gendered role in society. Part of the reason for choosing work over medication is also to fend for the family, given the fact that most of these boys have lost their fathers, and the duty to fend for the household seems to rest upon them. The breadwinner role attributed to male persons in society emerged during IDIs with some of the adolescent boys where one 18-year-old discussant stated:

You cannot take those drugs on an empty stomach. Moreover, you cannot withstand those long queues at the facility on an empty stomach, and worse still, you line up the whole day and then come back home and sleep hungry. I would rather ensure that the family has something to eat first. That is when I can think of even taking my ARVs or attending medical appointments.

Emanating from the statement from the 18-year-old boy, it is emerging that the adolescent boys in this study area are split between meeting the demands of medication and looking for food to feed their families. A number of boys, being orphans, live with their elderly relatives, as reflected in the analyses of their demographic information; hence, they are looked upon as breadwinners.

The issue of poverty among households where these adolescent boys live also emerged during interviews with the selected government officials. Food acquisition for fending the larger household comprising elderly relatives such as

grandparents and the boys' siblings is a problem; hence, older male members of the households must work and fend the families as stated by an ASCO:

A number of these boys have lost both their parents. They also have their younger brothers and sisters who look upon them (the boys) for support. On a couple of occasions, these boys would take up menial jobs such as mjengo (manual work at construction sites), fishing, farm work, and mining, among others, from which they would earn some money for family use. Quite a number of older adolescents on ART (17 – 19 years old) often get lost in the beaches while offering labour to fend for their families. Treatment seeking, therefore, is mostly secondary; they mostly prioritize earning a living for themselves and their families.

The breadwinner role as constructed by gender norms in this society is highlighted in the statement from the interview with this government officer. The adolescent boys who are on ART seem to view the need to fulfill their role of looking for food for their households as more important than seeking for medication. The families and the society at large in this study area also seem to understand and accept the fact that the boys prioritize working over medical appointments.

4. Implications of Enactment of Gender Roles on ART Adherence and VL Testing

Having identified the gender roles that adolescent boys have been constructed to take and what the circumstances in which they live (being orphans and living with elderly relatives) force them to do, the researchers proceeded to explore the implications that the performance of these roles have on ART adherence and viral load testing uptake among them (adolescent boys on ART). The sampled respondents (boys on ART) were presented with a questionnaire containing question items related to the duties they often take up and how these duties affect their medication, and the responses gathered are presented in table 3.

Implications of Enacted Gender Roles	Yes %	No %	Neutral %	Mean	Std. Dev
I only attend medical appointments after manual work such as fishing, Boda Boda, sand harvesting, tending after livestock, etc	43	10.3	46.8	3.41	.886
I sometimes skip ART drugs because they render me tired from performing, e.g. fishing, Boda Boda, sand harvesting, etc	34.6	11.4	54.0	3.24	.758
My work, e.g. fishing, Boda Boda, sand harvesting, etc, often feeds me; hence, VL test appointments become secondary	32.5	20.4	47.1	2.92	.881
Overall Mean				3.19	.842

Table 3: Implications of Gender Role Enactment

Interpretation Key: 1.00 – 1.44: Strongly Disagree; 1.45 – 2.44: Disagree; 2.45 – 3.44: Neither Agree nor Disagree; 3.45 – 4.44: Agree; 4.45 – 5.00: Strongly Agree

Results in table 3, based on the interpretation key of the study where a mean of 3.19 denotes that the sampled respondents "neither agreed nor disagreed" that the statements presented illustrate the implications of enactment of gender roles amongst them. This implies that in some particular circumstances, the issues denoted by or reflected in the statements do happen or occur, while in other circumstances, they do not occur. It should be noted that 43% of the adolescent boys stated that they only attend medical appointments after manual work such as fishing, Boda Boda, sand harvesting, tending after livestock, etc.; 34.6% indicate that they sometimes skip ART drugs because the drugs render them tired for performing, e.g. fishing, Boda Boda, sand harvesting, etc., while only 11.4% of them responded on the contrary, and 32.5% of the sampled adolescent boys indicated that their work, e.g. fishing, Boda Boda, sand harvesting, etc, often feeds them hence VL test appointments become secondary, while only 20.4% of them stated on the contrary. These statistics portray a grey picture towards the HIV and AIDS treatment cascade that requires at least 95% adherence and 95% VL suppression by patients.

The fulfillment of gender roles among the sampled respondents, as highlighted in table 3, was also captured in the qualitative data gathered during IDIs with some selected adolescent boys and interviews with health officials. It emerged that encouragement to fill in the role of the household head in the absence of the father and provide for the very basics, such as food, becomes more important in some of the families than seeking treatment. A statement that the study captured from an 18 year-old boy was:

... like on this day when I was scheduled to visit the facility for VL testing yet for four days, we had not taken Ugali (bread cooked with flour) for the last 3 days, and a neighbour who is a mason was looking for people to work as manual labourers. The payment was Kshs 500 at the end of the day. I had to take up the opportunity that later ensured that we had a good Ugali meal with meat. In fact, I worked for 4 consecutive days, and our family was assured of two weeks of good feeding. In most cases, the reality is that one must have what to eat before one thinks of honouring medical appointments.

The need to adhere to ART medication and honour VL testing appointments is relegated to ensuring the family is fed, according to the statement attributed to the 18-year-old adolescent boy in the preceding paragraph. Poverty in the family, coupled with the fact that the relatives with whom the adolescent boys live are old and cannot provide manual

labour for the purpose of putting food on the table, presents these boys with no option but to forego their medication to fulfil this role.

The researchers additionally gathered from the IDI that due to engagement in energy-demanding manual tasks, adolescent boys often skip taking ART drugs, ostensibly due to exhaustion. A statement by a 17-year-old adolescent boy was:

The drugs will normally render you exhausted. If you have a mjengo work that goes for more than three days, then you better skip the drugs because taking them will render you weak and the foreman at the site will quarrel with you and even take you out. This cold implies that the family misses a number of meals.

The sentiments attributed to the 17 year-old adolescent boy is a testimony that while the boys may want to adhere to ART and honour VL test appointments, the norms constructed in them of performing the breadwinner role must be fulfilled first. This seems to be the acceptable role by the boys themselves, the family with which they live, and the wider society within which they live.

5. Discussions

The socio-demographic characteristics of the sampled adolescent boys show that the majority of them (53.6%) have lost at least one parent or were total orphans living with grandparents and other relatives. This implies that adolescent boys in this area may be faced with numerous disadvantages, such as a lack of social and economic support, including education support, as well as food and clothing. This observation concurs with findings in previous studies done in the same area, such as Nyambedha et al. (2003), which revealed that about one out of five caretakers of HIV-related orphans was 55 years of age or above. Studies (see Ayieko, 2003; Olang'o et al., 2012) have shown that due to the advanced ages of HIV-related orphan caretakers, the orphans have become caretakers of their elderly relatives and are responsible for looking for food and other basics to fend for the households.

The study has also found that adolescent boys are, based on gender norms, under obligation to perform specific tasks for the family. These include helping out in the workshop and shop and providing labour in family farms. The boys are also expected to undertake income-generating duties such as manual labour in construction sites, fishing expeditions, and mining for purposes of providing food for their families. In essence, the boys are required to fulfill breadwinner roles to their elderly grandparents in the absence of their fathers. Findings describing breadwinner tasks that the boys in the current study are engaged in reflect what has been documented in previous literature, such as Bolzendahl and Myers (2004), Lomazzi and Seddig (2020), and Leddy et al. (2021). These studies illustrated that traditional norms of the society have constructed gendered specialization of tasks, with males expected to specialise as the breadwinner and females the homemaker. This is the gender role that the adolescent boys in the study area are fulfilling, although this is because they have lost their parents and are forced to live with their elderly relatives who cannot fend for them.

The researchers have also found that the adolescent boys in the study area have, time and again, dishonoured VL testing appointments and have skipped taking up their ART drugs. This is because the boys prefer taking up manual jobs such as *mjengo* (manual work at construction sites), *Ywayo sut* (fishing expeditions), or *kunyo milu* (mineral mining) for purposes of obtaining some income with which to buy food and other basic items to be used by the family. The boys also fail to take up their daily doses of ART because the effects of the medicine often render them exhausted; hence, they cannot effectively perform manual jobs, which they seriously need to achieve their 'breadwinner' role. These are the dire implications of trying to achieve what Ochola-Ayayo (1976) described as the breadwinner role of men as constructed by the Luo cultural norms. These are the miseries facing adolescent boys, the majority of whom are orphans in the study area: they have been forced to become caretakers of their elderly relatives whom they live with. This finding concurs with a number of previous studies done in Siaya (Ayieko, 2003; Nyambedha et al., 2003; Olang'o et al., 2012), which also found that orphaned children who live with their elderly grandparents have become caretakers of their elderly relatives in a number of locations in the county. The burden or implications of this caretaker and breadwinner turn out to be missing out on honouring VL test appointments as well as skipping taking up ART drugs as scheduled.

6. Conclusion

Viral load testing and adherence to ART are significant steps in the HIV and AIDS treatment cascade, which help in reducing mortality and spread of HIV infection and improving the lives of the patient. This study concludes that the adolescent boys on ART in Siaya County ascribe to particular gender norms, which determine the role that they are expected to perform for the family, such as attending family farms or business enterprises. The boys have enacted the 'breadwinner' role expected to be played by men in society. The study also concludes that the implication of endorsing gender roles as prescribed by society is the persistent failure of adolescent boys to honour VL testing appointments and taking up ART drugs as prescribed by the doctor. Perhaps the high number of HIV-related deaths recorded among adolescents on ART in a number of places in the Sub Saharan Africa is because of the enactment of gender roles as constructed by society.

7. References

- i. Adino, D. O. (2016). *Factors affecting adherence to antiretroviral therapy in Siaya County, Western Kenya* (Unpublished PhD dissertation). University of Nairobi.
- ii. Adino, D. (2020). Dynamics of management of HIV and AIDS in Kenya with special reference to the challenges facing people on antiretroviral therapy in Siaya County. *Journal of African Interdisciplinary Studies*, 4(12), 21-40.

- iii. Ayieko, M. A. (2003). From single parents to child-headed households: The case of children orphaned by AIDS in Kisumu and Siaya districts. UNDP.
- iv. Bolzendahl, C. I., & Myers, D. J. (2004). Feminist attitudes and support for gender equality: Opinion change in women and men, 1974–1998. *Social Forces*, 83(2), 759–789.
- v. Coen, S., & Banister, E. (2012). What a difference sex and gender make: A gender, sex and health research casebook. CIHR Institute of Gender and Health.
- vi. County Government of Siaya. (2013). *County integrated development plan 2013*. County Government of Siaya.
- vii. Davis, L. (1992). Instrument review: Getting the most from your panel of experts. *Applied Nursing Research*, 5, 194–197. [https://doi.org/10.1016/S0897-1897\(05\)80008-4](https://doi.org/10.1016/S0897-1897(05)80008-4)
- viii. Dawadi, S., Shrestha, S., & Giri, R. A. (2021). Mixed-methods research: A discussion on its types, challenges, and criticisms. *Journal of Practical Studies in Education*, 2(2), 25–36.
- ix. Del Pilar Sánchez-López, M., Cuellar-Flores, I., & Dresch, V. (2012). The impact of gender roles on health. *Women & Health*, 52(2), 182–196. <https://doi.org/10.1080/03630242.2011.652352>
- x. Dougherty, G., Akoth, S., Hawken, M., Leting, I., Mutei, R., Ngugi, C., ... & Rabkin, M. (2022). Improving viral load utilization to enhance care for Kenyan adolescents with HIV. *BMJ Open Quality*, 11(3), e001900. <https://doi.org/10.1136/bmjoq-2022-001900>
- xi. Enane, L. A., Apondi, E., Toromo, J., Bosma, C., Ngeresa, A., Nyandiko, W., & Vreeman, R. C. (2020). “A problem shared is half solved”— A qualitative assessment of barriers and facilitators to adolescent retention in HIV care in Western Kenya. *AIDS Care*, 32(1), 104–112.
- xii. Godoy, A., Rojo, A., Delgado, L., Martín, J. J., Sánchez, M. T., & López del Amo, M. P. (2022). Gender differences in perceived health in relation to working conditions and socio-economic status in Spain, 2014–2017. *MedRxiv*.
- xiii. Laufs, U., Rettig-Ewen, V., & Böhm, M. (2011). Strategies to improve drug adherence. *European Heart Journal*, 32(3), 264–268.
- xiv. Leddy, A. M., Gottert, A., Haberland, N., Hove, J., West, R. L., Pettifor, A., et al. (2021). Shifting gender norms to improve HIV service uptake: Qualitative findings from a large-scale community mobilization intervention in rural South Africa. *PLoS ONE*, 16(12), 1–13. <https://doi.org/10.1371/journal.pone.0260425>
- xv. Legesse, T. A., & Reta, M. A. (2019). Adherence to antiretroviral therapy and associated factors among people living with HIV/AIDS in Hara Town and its surroundings, North-Eastern Ethiopia: A cross-sectional study. *Ethiopian Journal of Health Sciences*, 29(3).
- xvi. Lomazzi, V., & Seddig, D. (2020). Gender role attitudes in the International Social Survey Programme: Cross-national comparability and relationships to cultural values. *Cross-Cultural Research*, 54(4), 398–431. <https://doi.org/10.1177/1069397120915454>
- xvii. Luseno, W. K., Iritani, B., Zietz, S., Maman, S., Mbai, I. I., Otieno, F., ... & Hallfors, D. D. (2017). Experiences along the HIV care continuum: Perspectives of Kenyan adolescents and caregivers. *African Journal of AIDS Research*, 16(3), 241–250.
- xviii. Mushy, S. E., Mtisi, E., Mkawe, S., Mboggo, E., Ndega, J., Yahya-Malima, K. I., ... & Ngalesoni, F. (2024). Barriers to viral load suppression among adolescents living with HIV on antiretroviral therapy: A retrospective study in Tanga, Tanzania. *AIDS Research and Therapy*, 21(1), 35.
- xix. National AIDS & STI Control Program (NASCOP). (2018). *Guidelines on use of antiretroviral drugs for treating and preventing HIV infection in Kenya 2018 edition*. Nairobi, Kenya: NASCOP. Available: <https://www.nascop.or.ke/new-guidelines/>
- xx. Nyambedha, E. O., Wandibba, S., & Aagaard-Hansen, J. (2003). “Retirement lost”—The new role of the elderly as caretakers for orphans in Western Kenya. *Journal of Cross-Cultural Gerontology*, 18(1), 32–52.
- xxi. Nyambedha, E. O., & Aagaard-Hansen, J. (2010). Educational consequences of orphanhood and poverty in Western Kenya. *Educational Studies*, 36(5), 555–567.
- xxii. Obiero, B. A. (2023). *HIV non-suppression trends in Siaya County: 2015–2021* (Unpublished master’s thesis). University of Nairobi.
- xxiii. Ocholla-Ayayo, A. B. C. (1976). *Traditional ideology and ethics among the Southern Luo*. Scandinavian Institute of African Studies.
- xxiv. Olang’o, C. O., Nyamongo, I. K., & Nyambedha, E. O. (2012). Children as caregivers of older relatives living with HIV and AIDS in Nyang’oma division in Western Kenya. *African Journal of AIDS Research*, 11(2), 135–142.
- xxv. Owoko, L., Olang’o, C., & Nyambega, B. (2019). Exploring caregiver-teen communication on adherence to antiretroviral therapy among adolescents living with HIV in Gem Sub-County, Western Kenya. *The International Journal of Humanities & Social Studies*, 7(5), 145–153. <https://doi.org/10.24940/theijhss/2019/v7/i5/HS1905-060>
- xxvi. PEPFAR. (2018). Enhanced monitoring of individuals with high VL. *Solutions website*. Available: <https://www.pepfarsolutions.org/solutions/2018/11/6/enhanced-monitoring-and-management-of-hiv-infected-individuals-on-antiretroviral-treatment-with-high-viralload-through-establishment-of-viremia-clinics> [Accessed 19 May 2024].
- xxvii. Poth, C., & Munce, S. E. P. (2020). Commentary: Preparing today’s researchers for a yet unknown tomorrow: Promising practices for a synergistic and sustainable mentoring approach to mixed methods research learning. *International Journal of Multiple Research Approaches*, 12(1), 56–64. <https://doi.org/10.29034/ijmra.v12n1commentary>

- xxviii. Qian, S. R. W., Hassan, S. A., Scallon, A. J., Oyaro, P., Brown, E., Wagude, J., ... & Patel, R. C. (2022). "After viral load testing, I get my results, so I get to know which path my life is taking me": Qualitative insights on routine centralized and point-of-care viral load testing in Western Kenya from the Opt4Kids and Opt4Mamas studies. *BMC Health Services Research*, 22(1), 1540.
- xxix. Rabkin, M., Achwoka, D., Akoth, S., Boccanera, R., Kimani, M., Leting, I., ... & Dougherty, G. (2020). Improving utilization of HIV viral load test results using a quality improvement collaborative in Western Kenya. *Journal of the Association of Nurses in AIDS Care*, 31(5), 566–573. <https://doi.org/10.1097/JNC.000000000000158>
- xxx. Stannah, J., Soni, N., Lam, J. K. S., Giguère, K., Mitchell, K. M., Kronfli, N., ... & Maheu-Giroux, M. (2023). Trends in HIV testing, the treatment cascade, and HIV incidence among men who have sex with men in Africa: A systematic review and meta-analysis. *The Lancet HIV*, 10, 528–542. [https://doi.org/10.1016/S2352-3018\(23\)00111-X](https://doi.org/10.1016/S2352-3018(23)00111-X)
- xxxi. UNAIDS. (2023). *Global HIV & AIDS statistics — 2023 fact sheet*. Available: <https://www.unaids.org/en/topic/treatment>
- xxxii. UNICEF. (2023). *Adolescent HIV prevention*. Accessed: May 3, 2024. Available: <https://data.unicef.org/topic/hiv/aids/adolescents-young-people/>
- xxxiii. WHO. (2003). *Adherence to long-term therapies: Evidence for action*. Geneva: WHO. Available: <http://apps.who.int/iris/bitstream/10665/42682/1/9241545992.pdf>. Retrieved on April 3, 2024.
- xxxiv. WHO. (2014). *Global update on the health sector response to HIV*. Available: http://apps.who.int/iris/bitstream/10665/128494/1/9789241507585_eng.pdf?ua=1. Accessed: June, 2024.
- xxxv. Zurbachew, Y., Hiko, D., Bacha, G., & Merga, H. (2023). Adolescent's and youth's adherence to antiretroviral therapy for better treatment outcome and its determinants: Multi-center study in public health facilities. *AIDS Research and Therapy*, 20(1), 1–6.