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Utilization of HIV Testing and Counseling Services by Teenage Pregnant Girls in Selected Health Facilities in Kilifi, Kenya

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Abstract

Despite worldwide advancements in health, many countries still face challenges regarding population health, chiefly due to the HIV/AIDS pandemic. AIDS-related illnesses are a leading cause of death among females aged 15-49, with younger individuals at a higher risk globally. HIV Testing Services (HTS) are crucial for managing AIDS, yet few youths are aware of their HIV status. A study in Kilifi found that out of 1,912 teenagers tested for HIV, 1,041 were enrolled in ART. This study aimed to determine the utilization of HIV testing and counseling services by pregnant teenage girls from selected health facilities in Kilifi County. An analytical cross-sectional study design was employed to assess HTS utilization among pregnant girls aged 13-19. Data were collected using a standard questionnaire from 250 participants, with categorical variables reported as counts and percentages. Chi-square was used to determine practices associated with utilization of HIV testing and counseling services was conducted using logistic regression models. Timely utilization of HTS within the recommended 12 weeks of pregnancy was reported by 81 (32.4%). Factors affecting timely HTS utilization included living more than 5 km from the facility (chi-square=16.5, P<0.001), source of income as casual or salaried employment (chi-square=11.4, P=0.02), and awareness that one should be tested while pregnant, which was linked to lower odds of timely HTS use (COR 0.36 (95% CI 0.14–0.90), P=0.03). The study concludes that teenage pregnant girls did not utilize the HTS within the recommended period of 1st trimester (32.4%) as per the MOH guidelines in Kenya. There were missed opportunities for testing for HIV bringing a gap in achieving 100% testing at the ANC level. This conclusion could be attributed to factors such as income and distance to the facilities as being a contributor to the low utilization of HTS.

Keywords: *Utilization, HIV Testing and Counseling Services, Teenage Pregnant Girls*

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1. Introduction

Human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) still poses a major health concern globally. As of 2019, 38 million people were living with HIV worldwide[1], of which 36.2 million were adults while 1.8 million were children. 81% of all the people living with HIV knew their HIV status[1]. Approximately, 80% of the HIV-infected adolescents live in sub-Saharan Africa. Acquired immune deficiency syndrome (AIDS)-related mortality has increased among adolescents 10–19 years old[2]. The increased number of adolescents infected with HIV has been a global concern, particularly among 10-19 years. In Sub Sahara for example, AIDS has been the number one killer of adolescents. To control the impact of AIDS on the lives of adolescents living in sub-Saharan Africa, early detection and treatment as well as the prevention of new infections are important.

Teenage HIV testing services among key population groups such as men having sex with men in Clark County, Nevada, approximately 52% were newly diagnosed with HIV infections in young people aged 13-24. Of these, 83% of the new diagnoses in this age group are men who have sex with men (MSM)[3].

Mother-to-child transmission (MTCT) is a major source of pediatric HIV infection. In the absence of any preventive measures, the risk of a baby acquiring the virus from an infected mother ranges from 15 to 45%, which occurs during pregnancy, labour, childbirth, or breast feeding[5]. HIV testing of women of childbearing age is an entry point for prevention of mother-to-child transmission (PMTCT). It is one of the primary prevention strategies for MTCT. There has been a 35% decrease in new pediatric HIV infections owing to HIV testing services (HTS) and HIV prevention services between 2010 and 2017[6]. However, a significant number of women in HIV epidemic regions have not been tested for HIV. Despite most countries in sub-Saharan region reporting over 77% of knowledge of HIV status, the age bracket of 15-24 years was least likely to know their status[7].

As in many parts of sub-Saharan Africa, HIV prevalence among women in Kenya is still high. In 2016, women accounted for 910,000 of the 1.6 million people living with HIV in Kenya[8]. Young women are almost twice as likely to acquire HIV as their male counterparts and accounted for 33% of the total number of new infections (23,312) in 2015. In comparison, young men accounted for 16% of all new HIV infections (12,464) (Kenyan Ministry of Health/National AIDS Control Council, 2016). Young women (aged 15-24), and adolescent girls (aged 10-19) in particular, account for a disproportionate number of new HIV infections[9]. This suggests that most infections in women occur at a younger age, during the first few years after sexual debut[10]. In the revised PMTCT guidelines from South Africa (2019), it is documented that focused and well-established interventions for PMTCT have shown that pediatric HIV infection can be eliminated, with antenatal care (ANC) playing an important role as a platform for HIV testing and provision of prevention services and providing youth-friendly sexually reproductive health interventions.

The Kenya ARV guidelines of 2022 under UNAIDS came up with 95-95-95 testing and treatment guidelines to ensure that all 95% diagnosed, those who test positive 95% are enrolled into treatment and 95% achieve suppressed viral load. However, according[5], 86% knew their status, 77% received antiretroviral therapy and 72% suppressed viral loads, which is below the recommended 95-95-95. The government introduced self-testing but this is yet to pick up in most regions.

AIDS-related illnesses are the leading cause of death among 15–49-year-old females with those at younger ages being at a higher risk globally. During pregnancy, the risk is even much higher. According to Kenya Demographic and Health Survey (2014), teen pregnancy and motherhood rates in Kenya stand at 18% and about 1 in every 5 adolescent girls has either had a live birth or is pregnant with her first child. Pregnancy rates increase markedly between 15 years and 19 years, from 3% at 15 years to 40% at 19 years. The rates of teenage pregnancies in Kenya remain highest in Narok County at 40%, Homabay, and West Pokot at 33% and 29% respectively and Kilifi at 22%.

The government, civil society organizations, faith-based organizations, stakeholders, and persons of interest have not been deaf and blind as teenage pregnancy gets rife in Kenya. On 3rd March 2020, the Kenyan government launched a National Council for Population and Development seeking an end to teen pregnancy. The campaign is focused on galvanizing communities on the need to end teen pregnancies through awareness and advocacy citing its negativity on socio-economic growth. As of 2019, the latest statistics from Global Childhood showed that Kenya has the third highest teen pregnancy rate with 82 births per 1000 births. According to the United Nations Population Fund Report, Kenya has recorded 378,397 adolescent and teenage pregnancies for girls aged 10-19 years between July 2016 and June 2017, specifically, 28,932 girls aged 10-14 and 349,465 girls aged 15-19 years became pregnant. It has been noted that adolescent girls and young women (AGYW) aged 15–24 years remain at higher risk of HIV infection compared to their male peers, especially in sub-Saharan Africa[8]. By 2015, only 23.5% of adolescents in Kenya aged 15-19 years knew their HIV status with only about half ever tested for HIV. Out of those aged 10-19 years, 105,679 needed anti-retroviral therapy (ART).

In Kilifi County, a report from the county ministry of health showed that for the period between July-December, 2020, of the 1,912 teenagers aged 10-14 years who had undergone H IV testing, 1041 teenagers were enrolled for ART. This shows the number testing HIV-positive in teenagers is high. Similarly, during the same period, of the 8,881 teenagers aged 15-19 years who had undergone HIV testing, only 834 teenagers were enrolled for ART. In the recent past, the rate of teenage pregnancies has worryingly increased in Kilifi County with girls aged between 14 years and 19 years being the targeted group. This has been largely blamed on the COVID-19 school break, cultural, illiteracy among parents, and poverty levels in the region. With teenage pregnancy comes the issue of HIV testing to ensure the prevention of HIV in the unborn child. According to the records of the county ministry of health, among 669 pregnant mothers who were diagnosed with HIV between July-December, 2020, 589 of these pregnant mothers were enrolled for ART. Additionally, evidence from the various stakeholders who conducted in-depth studies in the area showed majority of young mothers still opt to give birth at home where they are not subjected to HIV testing. Therefore, this study aimed to establish the utilization practices prevalence of HIV testing and counseling among teenage pregnant girls in Kilifi County.

Researchers have described Human immunodeficiency virus (HIV) counseling and testing as the service rendered to an individual for him or her to know his or her HIV status, which could either be positive or negative and should be confidential[11,12].

In sub-Saharan Africa, 60% of adult ladies are established to be living with HIV and there is confirmation that pregnant ladies are at a higher risk of being infected with HIV than non-pregnant ladies. Vertical transmission of HIV from mother to child remains a noteworthy issue, UNAIDS gauges that 390,000 kids in sub-Saharan Africa were recently infected with HIV in 2008 and around 90% of the worldwide weight of new pediatric infections[5]. This circumstance endures despite the way that antenatal HIV testing and prevention of mother-to-child transmission (PMTCT) mediations can diminish vertical transmission of HIV to as low as 1–2%. In numerous nations, HIV testing is currently routinely incorporated into antenatal care (ANC) administrations, unless the pregnant lady expressly denies it. The guarantee of antenatal HIV testing and PMTCT programs has driven UNAIDS to require a "virtual disposal" of mother-to-child transmission of HIV by 2015.

Since a pregnant lady is regularly the most obvious individual to be tested for HIV, she might be reprimanded for bringing the infection into the family and may experience the ill effects of antagonistic outcomes of her HIV-positive status revelation[9]. Fears and encounters of stigma or separation from well-being specialists, male accomplices, family, and group individuals have been distinguished as potential clarifications for the realities that some pregnant ladies keep away from maternity benefits all through, decline antenatal HIV testing, or drop out of PMTCT projects once enlisted[13]. Research has shown that when male partners are included in HIV testing and antenatal care (ANC), ladies will probably acknowledge antiretroviral (ARV) prophylaxis, conceive offspring in a health office, and cling to prescribed HIV-related care[14]. At the point when ladies have unveiled their HIV status and male accomplices are included in antenatal care, HIV newborn child survival makes strides.

A study done in Lusaka Zambia, found that home-based delivery of a universal HIV testing and treatment intervention reached youth, with the first 90 of the UNAIDS 90-90-90 target (90% of individuals living with HIV knowing their HIV–positive status) almost reached among adolescents, but that there were gaps in reaching younger men and challenges in sustaining high coverage of services among youth[15].

According to[9], fear of stigma from partners, families and communities contributes to low utilization of HCT services in case their families find out that they are sexually active or living with HIV[16]. AIDS-related stigma and discrimination has profoundly affected not only Utilization of HCT services but also treatment.

Studies have shown that the distance to the hospital in most of the developing countries plays a major role in the utilization of HCT since those residents near the health facility are more likely to be closer to health care services than those who reside away from the health facility. The Kenya HIV Prevention and Treatment Guidelines of 2022, articulates that to provide an enabling environment for HTS provision, the six Cs principles of Consent, Confidentiality, Counselling, Correct results, Connection (linkage) to care and other appropriate post-test services testing should be adhered to.

2. Methods

This study employed an analytical cross-sectional design where the researcher compared utilization in terms of when the initiation of HTS services took place among teenage pregnant girls from Kilifi County. The study population comprised all consenting pregnant teenagers aged 13-19 years old visiting antenatal care department at Kilifi County Referral Hospital, Mnarani, Kiwandani, and Mtondia dispensaries. The researcher employed a random sampling technique simultaneously in the 4 health facilities to recruit girls (study participants) aged 13 – 19 years who had come for HIV counseling and testing services (HTS) and consented to provide data. The sample size was 291.

The main instrument in this study was semi-structured questionnaires. A quantitative approach was used to collect data. Semi-structured questionnaires which were put in a Google form were used to collect quantitative data. Study data were collected using a standard questionnaire in a Google form and exported to an Excel sheet then analysis was done using the statistical software SPSS Version 26. Categorical variables were reported as counts with their respective percentages. Utilization of HIV testing and counseling services was defined as getting tested for HIV during the 1st trimester; a binary variable coded as 1 for yes and 0 for no. Chi-square was used to determine practices associated with utilization of HIV testing and counseling services was conducted using logistic regression models.

3. Results

3.1 Practices in Utilization of HTS

For one to access testing during the pregnancy the girls were to have attended ANC, and results from the study showed that those who attended ANC within the first twelve (12) weeks of pregnancy were 100 (40%) while 150 (60%) attended ANC after the 12 weeks. However, it was noted from the 100 girls who accessed ANC in 1st trimester only 81 girls tested within the recommended period, showing 19% missed opportunity for some of the girls as shown in figure 1.

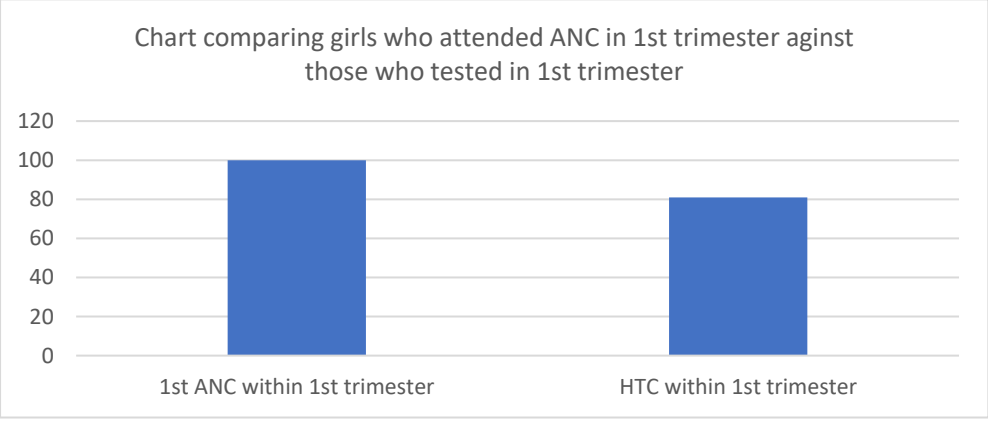

Figure 1: Comparing 1st ANC visit and girls tested during the visit

The study sought to find out if the girls had ever received HIV testing prior to the pregnancy and it revealed that 109 (43.6%) had previously tested for HIV before the pregnancy and 141 (56.6%) had never tested for HIV prior to the pregnancy. Reasons given by the 141 for not

testing previously were 70 (49.7%) of the girls reported they felt that they had not decided yet, 50 (35.5%) reported that they felt it was not necessary to take the test, while 21 (14.8%) had fear/stigma. The girls were then asked if they had received testing in the current pregnancy and 243 (97.2%) had received HTS while 7 (2.8%) had not been tested. Of the 243 who had been tested 207 (85.2%) had been counseled during the testing while 36 (14.8%) reported not to have been counseled during the testing., this gives a query on the quality-of-service provision on HTS. Asked if the girls had received adequate information on the importance of HIV testing 165 (66%) reported the information was adequate while 85 (34.0%) reported that information was inadequate as shown in Table 1.

Table 1: Utilization of HIV testing services

Variable	Characteristics	Frequency	Percentage
Attending first ANC after last menstrual period	<12 weeks	100	40
	≥12 weeks	150	60
HIV testing prior to pregnancy	No	141	56.4
	Yes	109	43.6
Reasons for not testing for HIV before	Not yet decided	70	49.7
	Not yet decided	50	35.5
	Fear/stigma	21	14.8
Testing for HIV during this pregnancy	No	7	2.8
	Yes	243	97.2
Counseled during the testing	No	36	14.8
	Yes	207	85.2

The results on timely utilization revealed that only 81 (32.4%) girls had tested within the recommended 12 weeks (1st trimester), 122 (48.8%) tested in 2nd trimester, 40 (16%) tested in 3rd trimester while 7 (2.8%) did not take the test as shown in Figure 2.

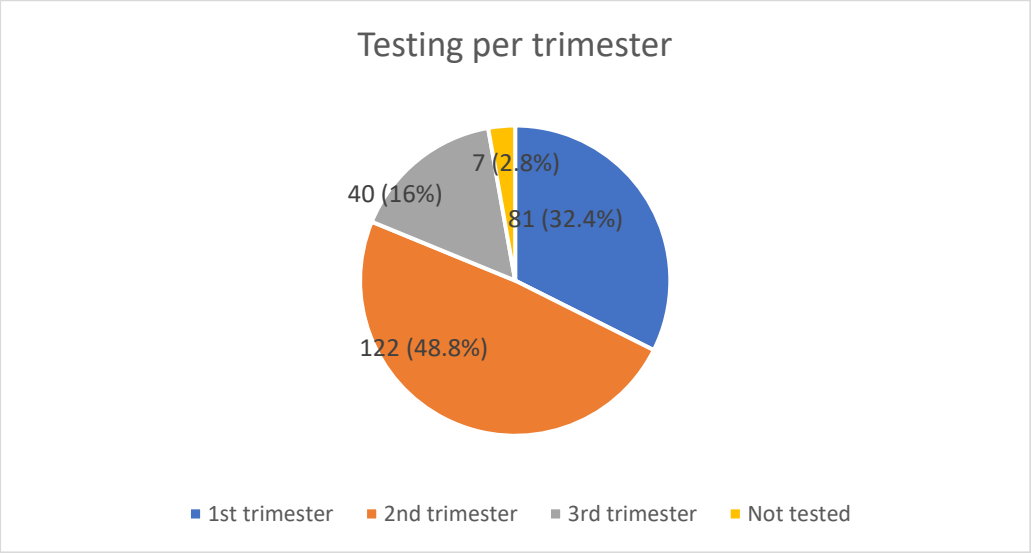

Figure 2: Point of testing for HIV during this pregnancy

The study sought to find out reasons for the girls to take the HIV test and 185 (76.1%) took HIV test because they wanted to test, while 58 (23.9%) reported having been asked to test. Asked about where they sat as they waited for the testing 215 (86.0%) reported to have sat at the waiting area with other pregnant mothers, while 35 (14.0%) sat alone. A total of 218 ((87.2%) reported having felt comfortable as they waited for the testing while 32 (12.8%) felt anxious. Asked if the service providers were friendly, 225 (90.0%) reported yes while 25 (10.0%) reported that the service providers were not friendly. When the girls were asked what would make the process for HTS provision more comfortable, 187 (74.8%) reported that it was comfortable while 63 (25.2%) stated that waiting would be more comfortable if there was some form of entertainment or refreshments. Asked if there were any difficulties met as they awaited HTS provision, 32 (12.8%) reported a long waiting period, while 16 (6.4%) reported hunger and the remaining 202 (80.8%) stated that they did not encounter any difficulties. When the girls were asked about stigma, 207 (82.8%) reported not to have felt any stigma, while 43 (17.2%) felt stigmatized. There were 212 (84.8%) girls felt comfortable taking the test while 38 (15.2%) felt uncomfortable. There were 119 (47.6%) girls who reported they would not be comfortable sharing their HIV test results while 131 (52.4%) reported that they were comfortable. Asked if the service providers made them feel comfortable as they counseled them for the test, 211 (84.4%) reported to have been made to feel comfortable while 39 (15.6%) reported not to have felt comfortable as shown in Table 2.

Table 2: HTS Service Provision

Variable	Characteristics	Frequency	Percentage
Reason for testing	Was asked to test	58	23.9
	Wanted to test	185	76.1
Place of waiting for the HIV test	At the waiting point with other mothers	215	86.0
	Alone	35	14.0
Feeling as one awaits testing	Normal/okay/comfortable	218	87.2
	Anxious/fear/afraid	32	12.8
Friendliness of service providers	No	25	10.0
	Yes	125	90.0
Making waiting period more comfortable	Entertainment/refreshment	63	25.2
	Nothing, it was comfortable	187	74.8
Difficulties met awaiting services	Long waiting time	32	12.8
	Hunger	16	6.4
	None	202	80.8
Feeling stigmatized during waiting period	No	207	82.8
	Yes	43	17.2
Feeling comfortable taking the test	No	38	15.2
	Yes	212	84.8
Ability to share test results	No	119	47.6
	Yes	131	52.4
Comfort during counselling session	No	39	15.6
	Yes	211	211

3.2 Utilization of HIV testing and counselling services

Overall, 81/250 of the teenage pregnant girls utilized HIV testing and counselling services within the recommended 1st trimester (timely utilization) a prevalence of 32.4% (95%CI 26.7–38.6) as shown in Figure 3.

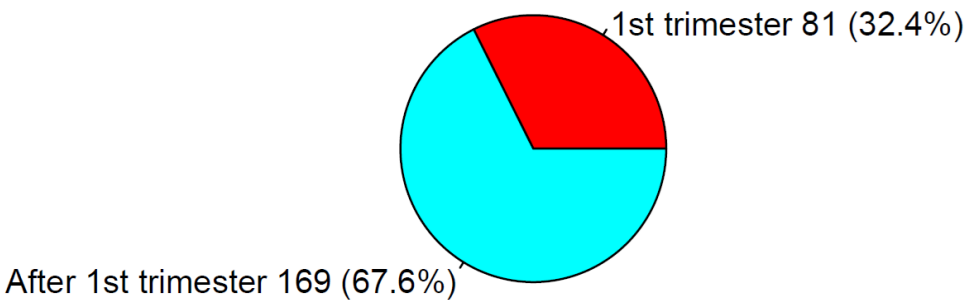

Figure 3: Figure 1Proportion of teenage pregnant girls who timely utilized HIV testing and counselling services (within 1st trimester).

The proportion of teenage pregnant girls who timely utilized HIV testing and counselling services were 23 out of 57 (40.4%) from Mnarani dispensary, 34 out of 110 (30.9%) from KCH, 21 out of 71 (29.6%) from Kiwandani dispensary and 3 out of 12 (25.0%) from Mtondia dispensary (no significant difference, chi-square value=3.76, P-value=0.71) as shown in Figure 4.

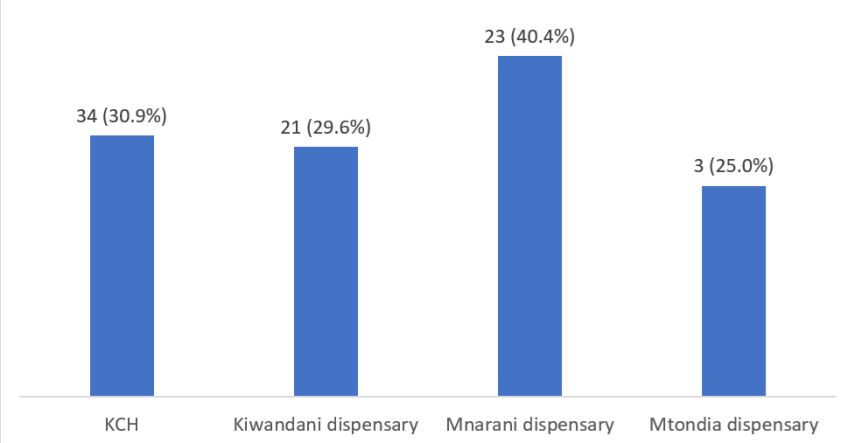

Figure 4: Proportion of teenage pregnant girls who utilized HIV testing and counseling services (within 1st trimester) across the health facilities.

182 (72.8%) agreed that the use of condoms or abstaining can help in preventing HIV, while 18 (7.2%) disagreed and 50 (20.0%) did not know. A total of 113 (45.2) girls agreed that the use of ARVs helped reduce the impact of HIV, 6 (2.4%) disagreed while 131 (52.4%) did not know. On issues of counseling, 206 (82.4%) agreed that it helped with dealing with HIV infection, 11 (4.4%) disagreed and 33 (13.2%) did not know. The girls who agreed that engaging in unprotected sex with a younger or an older person increased the risk of acquiring HIV were 103 (41.2%) while 68 (27.2%) did not agree and 79 (31.6%) reported not knowing. The girls who reported knowing that engaging in unprotected sex increased the chances of

acquiring HIV were 92 (36.8%), while those who disagreed were 66 (26.4%) and those who did not know were 92 (36.8%) as shown in table 3.

Table 3: Practices that would influence testing

Variable	Characteristics	Frequency	Percentage
Use of condoms	Agreed	182	72.8
	Disagreed	18	7.2
	Did not know	50	20.0
Use of ARVs helps reduce the impact of HIV on the body	Agreed	113	45.2
	Disagreed	6	2.4
	Did not know	131	52.4
Counselling process helps one to deal with HIV/AIDS infection	Agreed	206	82.45
	Disagreed	11	4.45
	Did not know	33	13.2
Engaging in unprotected sex with younger or older persons increases chances of acquiring HIV/AIDS.	Agreed	103	41.2
	Disagreed	68	27.2
	Did not know	79	31.6
Engaging in unprotected sex can increase chances of acquiring HIV/AIDS.	Agreed	92	36.8
	Disagreed	66	26.4
	Did not know	92	36.8

3.3 Socio-demographic factors associated with utilization of HTS

Results showed that timely utilization of HIV counseling and testing services was significantly different between main source of income (chi-square = 11.4, P-value =0.02) and timely utilization of HIV counseling and testing services was significantly different between distances <5 km compared to ≥5 km (chi-square=16.5, P-value <0.001). Results did not show any significant difference between age (chi-square=0.90, P-value=0.34), level of education (chi-square=0.11, P-value0.95), religion (chi-square=3.42, P-value=0.49) as shown in Table 4.

Table 4: Study participants' Socio-demographic characteristics stratified by timing of HIV testing.

Variable	Characteristics	Timely utilization of HTS				Chi-square value	P-value
		Yes	%	No	%		
Age in years	13 to 16	12	40.0	18	60.0	0.90	0.34
	17 to 19	69	31.4	151	68.6		
Marital Status	Single	33	33.3	66	66.7	0.90	0.34
	Married	48	31.8	103	68.2		
In school before this pregnancy	No	42	32.6	87	67.4	0.003	0.96
	Yes	39	32.2	82	67.8		
Type of school	Day	37	31.9	79	68.1	0.14	0.70
	Boarding	2	40.0	3	60.0		
Education Level	Primary	21	32.3	44	67.8	0.11	0.95
	Secondary	14	31.1	31	68.9		
	Tertiary	4	36.4	7	63.6		
Religion	Christian	68	34.9	127	65.1	3.42	0.49
	Others (Muslim/others)	13	23.6	42	76.4		
Main source of income	Supported by family	65	35.1	123	69.9	11.4	0.02
	Business/farming/ Casual labour/salary	16	25.8	46	74.2		
Distance from health facility	Less than 5 km	47	37.6	78	62.4	16.5	<0.001
	More than 5km	34	27.2	91	72.8		
Means of transport	Walking	38	36.9	65	63.1	1.61	0.20
	Public transport/ Motorbike	43	29.3	104	70.7		

3.4 Practices on HTS characteristics associated with utilization of HTS

Results showed that the practice of the use of condoms or abstinence had a borderline effect on the timely utilization of HIV counseling and testing services (chi-square=5.90, P-value=0.05) while the other variables did not report any significant result as shown in Table 5.

Table 5: Practices on HTS associated with timely utilization of HTS by teenage pregnant girls

Variable	Characteristics	Timely utilization of HTS				Chi-square value	P-value
		Yes	%	No	%		
The use of condoms or abstinence helps in HIV prevention	Agree	66	36.3	116	63.7	5.90	0.05
	Disagree	2	11.1	16	88.9		
	Did not know	13	26.0	37	74.0		
Use of ARVs helps reduce the impact of HIV/AIDS on the body	Agree	42	37.2	71	62.8	2.54	0.28
	Disagree	1	16.7	5	83.3		
	Did not know	38	29.1	93	70.9		
Counselling process helps one to deal with HIV/AIDS infection	Agree	71	34.5	135	65.5	2.42	0.29
	Disagree	2	18.2	9	81.8		
	Did not know	8	24.2	25	75.8		
Engaging in unprotected sex can increase chances of acquiring HIV/AIDS.	Agree	30	29.1	73	70.9	0.88	0.65
	Disagree	24	35.3	44	64.7		
	Did not know	27	34.2	52	65.8		
Engaging in unprotected sex with a younger or older person can increase chances of acquiring HIV/AIDS.	Agree	28	30.4	64	69.6	0.67	0.72
	Disagree	24	36.4	42	63.6		
	Did not know	29	31.5	63	68.5		

4. Discussion

Our finding reported that, no practice factors were found to be associated with the timely utilization of HIV testing and counselling services, which is contrary to a study done in Nigeria which revealed that, the hostile approach of counselors at VCT centres discouraged clients from seeking services at VCT outlets[17]. Our findings further negate that of studies conducted in Tshwane, South Africa, and Kwara state Nigeria which reported that there was a need for a friendlier VCT centre to encourage young adults to utilize the services provided at the centres[18,19]. The possible reason for practices not being statistically significant could be explained by the fact that practices are more behavioral and can be well measured using opinions from the respondents such as focused group discussion.

Further, the respondents gave their opinions through key informant interviews to understand pregnant girls. Our findings revealed that stigma, lack of knowledge, and fear of knowing their status were the main challenges hindering pregnant teenagers and young mothers from coming for voluntary HIV testing and counseling. A similar observation was reported in South Africa, which highlighted that HIV stigma among women and adolescent girls posed challenges to mothers of pregnant teenagers[20]. A similar finding by [21] from the University of Venda in South Africa showed that issues of HIV/AIDS-related stigma, potential fear of positive results, and cited negative attitudes from health care workers were reported to be a contributory factor to low uptake of HTS by young people. Another study by[22] showed that 76.8% of girls aged 15-19 years had ever tested for HIV, these results are higher compared to my study results which showed girls ever tested for HIV before pregnancy were reported at 43.6% (109). These results showed a gap in testing for adolescent girls.

Furthermore, the data confirm that adolescents choose not to disclose their HIV status to fit in with their classmates and love relationships. This appears to explain why, while the number of new HIV infections has decreased across all age groups, HIV infection among adolescents has increased significantly, despite a high prevalence of virological failure. The low prevalence of HIV testing and counseling services utilization among pregnant girls aged 13-19 years may continue to rise if suitable steps are not adopted to address the problems associated with the use of HTS in selected health facilities in Kilifi County.

5. Conclusion

The study concludes that teenage pregnant girls did not utilize the HTS within the recommended period of 1st trimester (32.4%) as per the MOH guidelines in Kenya. There were missed opportunities for testing for HIV bringing a gap in achieving 100% testing at the ANC level. This conclusion could be attributed to factors such as income and distance to the facilities as being a contributor to the low utilization of HTS.

The study recommends the need to promote more attractive, safer sexual behavior among youth through increasing access to testing teenagers, ensuring the availability of safe spaces, and use of comprehensive HIV testing information and services.

The Government of Kenya to utilize the already existing youth-friendly services on group and individual education and emphasize the importance of testing in the 1st trimester and ensuring they have at least 8 ANC visits will ensure that the teenage girls are aware and access testing services within recommended periods.

Adolescent sexual and reproductive health programs, the Ministry of Gender, Culture and Sports as well as religious organizations need to design information targeting young people on the importance of timely testing and ensure the package is attractive enough for teenagers. Such programs can educate young people on what constitutes safer sex and the consequences of unsafe sexual practices which can enable them to come up with ideal choices that can be made and behaviors adopted to reduce or minimize the risk of untimely utilization of HTS.

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