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HIV Serostatus Disclosure and Associated Factors amongst Children on Antiretroviral Therapy in Fako and Meme Division, South-West Region, Cameroon

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Abstract

Background: Disclosure of HIV serostatus to children living with HIV remains low in many sub-Saharan African countries, leading to poor adherence and psychological difficulties. This study aimed to determine the prevalence of HIV serostatus disclosure and identify factors associated with disclosure among children receiving antiretroviral therapy (ART) in Fako and Meme Divisions of the South-West Region of Cameroon. **Methods:** A hospital-based cross-sectional study was conducted among 429 caregiver-child pairs recruited from four public health facilities providing pediatric HIV services in the South-West Region of Cameroon. Ethical clearance and administrative authorisation were obtained from the relevant authorities. Data were analysed using IBM SPSS version 25. Variables associated with disclosure were entered into a multivariable logistic regression model to identify independent predictors. Statistical significance was set at $p < 0.05$. **Results:** Caregivers ranged in age from 20 to 79 years, with a mean age of 45.7 ± 9.5 years, while the children ranged from 5 to 19 years, with a mean age of 14.2 ± 3.7 years. The prevalence of full disclosure was 62.2%. Multivariable logistic regression showed that age of the child (AOR = 5.8; 95% CI: 4.0 - 7.5; $p < 0.001$), the child's awareness of HIV care and treatment (AOR = 21.0; 95% CI: 1.2 - 43.0; $p = 0.048$), low self-esteem and stigma (AOR = 0.40; 95% CI: 0.23 - 0.69; $p < 0.001$), and the person who disclosed the diagnosis (AOR = 0.10; 95% CI: 0.02 - 0.43; $p = 0.002$) were independently associated with HIV serostatus disclosure. **Conclusion:** HIV serostatus disclosure among children receiving ART remains suboptimal and varies across health facilities. Child age, awareness of HIV care and treatment, low

self-esteem and stigma, and the person responsible for disclosure were linked to whether disclosure occurred. Strengthening family-centred and psychosocial support interventions may improve disclosure practices and enhance the health and psychological well-being of children living with HIV.

Keywords

HIV, Serostatus Disclosure, Children, Antiretroviral Therapy, Cameroon

1. Background

Pediatric disclosure in this study refers to a child's or adolescent's knowledge or awareness of his or her HIV status [1]. Disclosure has been associated with improved adherence to antiretroviral therapy (ART) [2] [3], better access to support services, improved communication within the family [4]-[7], and enhanced psychological well-being [8] [9]. Despite these benefits, disclosure rates remain low in many low- and middle-income countries, particularly in sub-Saharan Africa, including Ghana [1] [4]. Factors contributing to the low rates of disclosure include caregivers' fear that disclosure may negatively affect the child's psychological well-being, concerns that the child may not maintain confidentiality, fear of being blamed for transmitting the infection, stigma, and the perception that the child is too immature to understand the diagnosis [4] [10]. Consequently, caregivers often face the difficult decision of whether or not to disclose the child's HIV status. Delayed or non-disclosure has been associated with poor adherence to treatment and adverse psychological outcomes, which may compromise the health and well-being of children living with HIV [10] [11].

Although substantial progress has been made in the global HIV response, children continue to be disproportionately affected by the epidemic. Of the estimated 39.0 million people living with HIV worldwide in 2022, approximately 2.58 million were children aged 0 - 19 years. In the same year, an estimated 740 children acquired HIV each day, while approximately 274 children died daily from AIDS-related causes, largely because of inadequate access to HIV prevention, care and treatment services [12]. In Cameroon, an estimated 31,000 children aged 0 - 14 years are living with HIV [13]. National reports indicate that pediatric HIV remains a significant public health concern in Cameroon [14]-[16].

Effective pediatric HIV management requires timely disclosure of HIV status and appropriate follow-up care. However, disclosure remains challenging because of stigma and discrimination, psychosocial burden, health disparities, caregiver stress, lack of comprehensive disclosure guidelines, complexities in long-term follow-up care, and difficulties associated with transitioning adolescents to adult HIV services. These challenges continue to hinder optimal care for children living with HIV.

Addressing these challenges is essential to improve the quality of life and health

outcomes of children living with HIV and to inform healthcare providers, policymakers and programme implementers in developing effective disclosure interventions and support systems. Therefore, this study aimed to determine the prevalence of HIV serostatus disclosure, assess the determinants of disclosure, and identify available support systems for children receiving antiretroviral therapy (ART) in the Fako and Meme Divisions of the South-West Region of Cameroon. The findings contribute evidence that may inform strategies to strengthen pediatric HIV disclosure and support services in Cameroon.

2. Materials and Methods

2.1. Study Area

The study was conducted in health facilities in Fako and Meme Divisions, South-West region of Cameroon, specifically Regional Hospital Buea, Regional Hospital Limbe, Regional Hospital Annex Kumba and District Hospital Muyuka. The first three are the biggest public health facilities delivering ART services in the South-West Region (Second referral level hospitals) while the Muyuka district hospital is a first referral hospital.

2.2. Study Design

A hospital-based cross-sectional study was conducted from November 2024 to November 2025 among 429 caregiver-child pairs attending four public health facilities providing pediatric HIV services in the South-West Region of Cameroon. The facilities included three high-volume referral hospitals and one district hospital. Only caregiver-child pairs who met the eligibility criteria were included in this study.

2.3. Eligibility Criteria

All caregivers of HIV-positive children aged 5 - 19 years who had been receiving ART for at least six months and who accepted voluntarily to take part in the study were included in the study. Caregiver-child pairs who declined to participation because of severe illness or who could not give complete information on the questionnaire were excluded from the study.

2.4. Sample Size Determination and Sampling Technique

The sample size will be calculated based on the formula for calculating sample size for a prevalence study [17]

$$n = \frac{Z^2 pq}{d^2} = \frac{Z^2 p(1-p)}{d^2}$$

where;

n = desired sample size;

Z = standard normal variate of the confidence level (95% = 1.96);

p = estimated proportion in the population with the characteristic of interest

from the previous study;

q = 1 − p = estimated proportion without the characteristic of interest from the previous study, d = desired precision/accuracy or margin of error (1% - 10%).

Since the prevalence (p) of HIV disclosure in children in the Fako and Meme division is not known from previous studies, 50% is used and if we assume 95% CI and a 0.05 degree of precision. Accordingly, the sample size was 384

$$n = \frac{(1.96)2(0.5)(0.5)}{0.05^2} = 384$$

Considering a non-response rate of 10% n = 427.

A consecutive sampling technique was employed, whereby all eligible caregiver-child pairs attending the pediatric HIV clinics during the study period were recruited until the required sample size was attained.

2.5. Data Collection

Data were collected using a 52-item structured interviewer-administered questionnaire adapted from the USAID 32-item disclosure questionnaire. Caregiver sociodemographic characteristics and disclosure-related information were obtained through caregiver interviews. Clinical information, including WHO stage, duration on ART, opportunistic infections and year of ART initiation, was extracted from patient records. When caregivers reported that a child knew his or her HIV status, confirmation was sought from the child with the caregiver's consent. For children (12 years and above) attending the clinic independently and who already knew their HIV status, data were collected directly from them.

2.6. Data Analysis

Data collected from the field was kept by the principal investigator, who ensured work was done in accordance with the schedule, data was cleaned manually by reviewing and checking filled questionnaires from the field and observation of data collectors as the conduct interviews, unfilled and unanswered questions were edited.

The data was entered into the computer and analysed using the Statistical Package for the Social Sciences (IBM SPSS) version 25.

Descriptive statistics were used to show the prevalence of disclosure: frequency distribution, simple descriptive statistics, measures of central tendency and measures of variability.

Bivariate analysis was used to show the association of related variables. An odds ratio with 95% confident interval was computed to assess the presence and degree of association between variables.

A multiple logistic regression model was also used to identify the important determinants of disclosure. A p-value of below 0.05 denoted a significant difference. Variables with p-values < 0.20 during bivariate analysis were entered into the multivariable logistic regression model. Backward stepwise elimination was used to retain variables with $p < 0.05$. Collinearity between predictors was assessed before final model fitting. Variables with sparse categories were merged where

necessary to improve model stability.

Health facility was assessed as a potential covariate in the regression analysis. Small categories were combined to make the model more reliable. We noted this limitation when interpreting results.

2.7. Ethical Considerations

Ethical approval was obtained from the Institutional Review Board of the Faculty of Health Sciences, University of Bamenda. Regional ethical approval from the South-West regional ethics committee for human health research and administrative authorisation was granted from the Delegation of Public Health for the South-West Region, Cameroon.

Verbal informed consent and assent were obtained for parents and legal caregivers and assent were obtained from children less than 12 years, and confidentiality was assured before the interview due to potential literacy challenges and the sensitivity of the study, the research work was explained in Pidgin or English, documented by the trained data collectors and supervised by the principal investigator to ensure comprehension and voluntariness.

3. Results

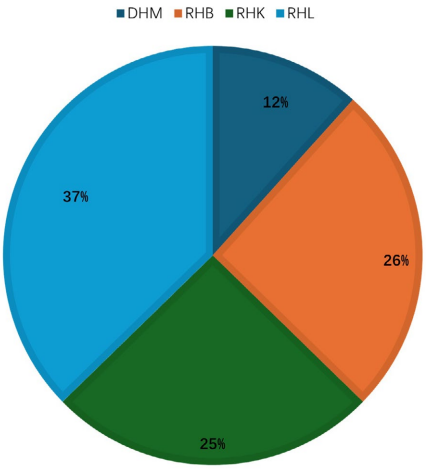


Figure 1. Distribution of respondents by health facility.

A total of 429 participants were recruited for the study, 37%, 26%, 25% and 12% from Limbe, Buea and Kumba regional hospitals and Muyuka district hospital, respectively (**Figure 1**). Their ages ranged from 20 to 79 years, with a mean age of 45.7 ± SD 9.5. Almost half of them, 190 (44.3%), were from the age group 40 - 49 years. Most of them, 366 (85.3%) were females. For religious affiliation, Christians 159 (36%) and protestants 193 (45%) respectively made 81% of the respondents, singles and married couples were 137 (31.9%) and 192 (44.8%) respectively. It's worth mentioning that close to 20% of the respondents were widowed/widowers. Civil servants (12.4%), Farmers (25.6%) and Business or petty trading (48.3%) make up the bulk of the respondents. Most of them earn from 35 - 100,000 FCFA

(40.6%) and less than 35,000 FCFA (34.7%) respectively. The age range of the HIV-positive children was from 5 to 19 years with a mean of 14.2 ± 3.7. Most of them (52.4%) were from the 15 - 19 years age-group, and boys (52.2%) were more than girls. Also, most of them had ART initiation within 0 - 5 years (62.7%) and greater than five years on ART (85.1%). Furthermore, while most of the children were schooling (87.4%), had a parent lost by HIV/AIDS (42.9%) and were WHO clinical Stage I (67.4%) during initiation just 31% had social support and 8.2% had history of opportunistic infection (Table 1).

Table 1. Sociodemographic characteristics of primary caregivers (PCG) and HIV-positive child (N = 429).

(a)

Sociodemographic characteristic of primary caregivers (PCG)				Sociodemographic characteristic of HIV-positive children			
Variable	**Categories**	**n**	**(%)**	**Variable**	**Categories**	**n**	**(%)**
Age group (years)	20 - 29	19	4.4	Age (years)	5 - 9	65	15.2
	30 - 39	86	20.0		10 - 14	139	32.4
	40 - 49	190	44.3		15 - 19	225	52.4
	50 - 59	99	23.1	Sex	Male	224	52.2
	60 - 69	27	6.3		Female	205	47.8
	70 - 79	8	1.9	Age of ART initiation (year)	0 - 5	269	62.7
Sex	Male	63	14.7		6 - 10	116	27.0
	Female	366	85.3		11 - 15	39	9.1
Religion	No religion	16	3.7		16 - 19	5	1.2
	Muslim	7	1.6	Duration on ART (years)	0 - 1	12	2.8
	Christian	158	36.8		2 - 3	21	4.9
	Protestant	193	45.0		4 - 5	31	7.2
	other	55	12.8		>5	365	85.1
Marital status	Single	137	31.9				
	Married	192	44.8				
	Divorced	15	3.5				
	Widowed/widower	85	19.8				

(b)

Sociodemographic characteristic of primary caregivers (PCG)				Sociodemographic characteristic of HIV-positive children			
Variable	**Categories**	**n**	**(%)**	**Variable**	**Categories**	**n**	**(%)**
Occupation	Unemployed	41	9.6	Schooling	yes	375	87.4
	Civil servant	53	12.4		No	54	12.6
	Farmer	110	25.6	Availability of social support	Yes	133	31.0
	Business	207	48.3		No	296	69.0
	Daily laborer	18	4.2	HIV/AIDS lost	Yes	184	42.9
Income level	<35,000	149	34.7		No	245	57.1
	35 - 100,000	174	40.6	Opportunistic infection	Yes	35	8.2
	101 - 150,000	73	17.0		No	394	91.8

Continued

	151 - 200,000	29	6.8	WHO stage of HIV infection	Stage I	289	67.4
	>200,000	4	0.9		Stage II	52	12.1
Education level	No education	30	7.0		Stage III	74	17.2
	Primary	195	45.5		Stage IV	14	3.3
	Secondary	170	39.6				
	Tertiary	34	7.9				
Residence	Urban	216	50.3				
	Rural	213	49.7				
Family size	≤3	153	35.4				
	≥4	276	64.6				
Relationship with child	Non-biological	280	65.3				
	Biological	149	34.7				

n = frequency; % = percentage.

With respect to prevalence, disclosure status was as follows: No disclosure (33.6%), Partial disclosure (4.2%) and Full disclosure (62.2%) (Figure 2).

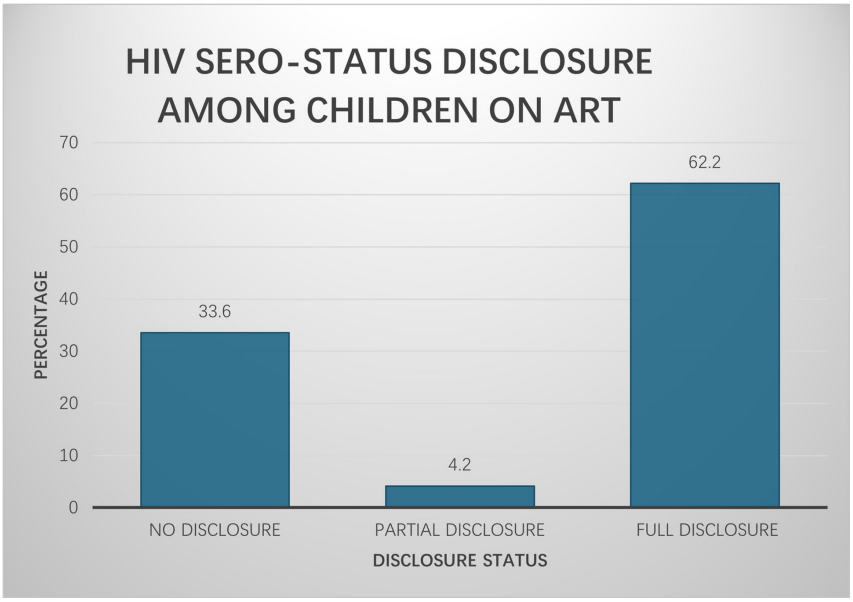


Figure 2. Prevalence of disclosure among HIV-positive children on ART.

Bivariate analysis reveals that: Age of caregiver ($p < 0.001$), Marital status ($p < 0.007$), Income level ($p < 0.008$), Residence ($p < 0.001$) and Family size ($p < 0.003$) of the caregivers were associated with disclosure (Table 2).

Accordingly, Age of child ($p < 0.001$), years of ART initiation ($p < 0.001$), Duration on ART ($p < 0.02$), Schooling status ($p < 0.01$), Availability of social support ($p < 0.006$) and Lost of a parent by HIV/AIDS (0.007) were also statically significantly associated with child's disclosure, while the presence of opportunistic infection during initiation and WHO clinical staging were not significant (Table 3).

Table 2. Bivariate analysis of caregivers' sociodemographic variables associated with child's disclosure (N = 429).

(a)					
Variable	**Categories**	**Disclosed n (%)**	**Non-disclosed n (%)**	**Total n (%)**	**p-value**
Age group (years)	20 - 29	5 (1.2)	14 (3.3)	19 (4.5)	<0.001
	30 - 39	31 (7.2)	55 (12.8)	86 (20.0)	
	40 - 49	127 (29.6)	63 (14.7)	190 (44.3)	
	50 - 59	75 (17.5)	24 (5.6)	99 (23.1)	
	60 - 69	20 (4.6)	3 (0.7)	23 (5.3)	
	70 - 79	9 (2.9)	3 (0.7)	12 (3.6)	
Sex	Male	221 (51.5)	145 (33.7)	366 (85.3)	0.058
	Female	46 (10.7)	17 (3.9)	63 (14.7)	
Religion	Atheist	2 (0.47)	5 (1.2)	7 (1.6)	0.075
	Muslim	113 (26.3)	80 (18.6)	193 (44.9)	
	Christian	99 (23.1)	59 (13.7)	158 (36.9)	
	Protestant	30 (6.9)	10 (2.3)	40 (9.3)	
	Other (Pentecostal)	23 (5.3)	8 (1.8)	31 (7.3)	
Marital status	Single	69 (16.0)	68 (15.8)	137 (31.9)	<0.007
	Married	128 (29.8)	64 (14.9)	192 (44.8)	
	Divorced	52 (12.12)	20 (4.6)	72 (16.8)	
	Widowed	18 (4.19)	10 (2.3)	28 (6.5)	
Occupation	Unemployed	64 (14.9)	46 (10.7)	110 (25.6)	0.440
	Civil servant	24 (5.6)	17 (3.9)	41 (9.5)	
	Farmer	100 (23.3)	60 (13.9)	160 (37.2)	
	Business	51 (11.8)	20 (4.7)	71 (16.5)	
	Daily labourer	28 (6.5)	19 (4.4)	47 (10.9)	
Income level	<35,000	94 (21.8)	80 (18.8)	174 (40.6)	<0.008
	35 - 100,000	92 (21.4)	57 (13.3)	149 (34.7)	
	101 - 150,000	24 (5.6)	9 (2.1)	33 (7.7)	
	>151,000	57 (13.3)	16 (3.7)	73 (17.0)	
(b)					
Variable	**Categories**	**Disclosed n (%)**	**Non-disclosed n (%)**	**Total n (%)**	**p-value**
Education level	No formal education	115 (26.8)	80 (18.6)	195 (45.4)	0.397
	Primary	107 (24.9)	63 (14.7)	170 (39.6)	
	Secondary	20 (4.7)	10 (2.3)	30 (7.0)	
	Tertiary	25 (5.8)	9 (2.1)	34 (7.9)	
Residence	Urban	105 (24.5)	107 (24.9)	212 (49.4)	<0.001
	Rural	162 (37.7)	55 (12.8)	217 (50.6)	
Family size	≤3	78 (18.2)	74 (17.2)	152 (35.4)	<0.003
	≥4	189 (44.1)	88 (20.5)	277 (64.6)	
Relationship with child	Non-biological	165 (38.5)	115 (26.8)	280 (65.3)	0.053
	Biological	102 (23.8)	47 (10.9)	149 (34.7)	

n = frequency; % = percentage.

Multivariate regression was used to adjust for confounder reveals that: Age of Child AOR = 5.8, (95% CI 2.0 - 7.5, p < 0.001), Child's knowledge of HIV care and treatment AOR = 21, (95% CI 1.2 - 43, p < 0.048), Child develop low self-esteem and stigma AOR = 0.40, (95% CI 0.23 - 0.69, p < 0.001) and Person who disclosed AOR = 0.10 (95% CI 0.02 - 0.43. p < 0.002) were the key predictors of disclosure among HIV positive children 5 to 19 years in Cameroon (Table 4).

Table 3. Bivariate analysis of children's sociodemographic variables associated with disclosure (N = 429).

Variable	Categories	Disclosed n (%)	Non-disclosed n (%)	Total n (%)	p-value
Age group (years)	5 - 9	1 (0.2)	64 (14.9)	65 (15.1)	<0.001
	10 - 14	55 (12.8)	84 (19.6)	139 (32.4)	
	15 - 19	211 (49.2)	14 (3.2)	225 (52.4)	
Sex	Male	134 (31.2)	90 (20.9)	224 (52.2)	0.281
	Female	133 (31.0)	72 (16.8)	205 (47.8)	
ART initiation (year)	0 - 5	143 (33.3)	126 (29.4)	269 (62.7)	<0.001
	6 - 10	88 (20.5)	28 (6.5)	116 (27.0)	
	11 - 15	30 (7.0)	6 (1.4)	36 (8.4)	
	16 - 19	6 (1.4)	2 (0.5)	8 (1.9)	
Duration on ART	0 - 1 years	22 (5.1)	30 (7.0)	52 (12.1)	<0.021
	2 - 3 years	7 (1.6)	5 (1.2)	12 (2.8)	
	4 - 5 years	208 (48.5)	107 (24.9)	315 (73.4)	
	>5 years	30 (7.0)	20 (4.7)	50 (11.7)	
Schooling	Yes	221 (51.5)	154 (35.9)	375 (87.4)	<0.010
	No	46 (10.7)	8 (1.8)	54 (12.6)	
Availability of social support	Yes	70 (16.3)	63 (14.7)	133 (31.0)	<0.006
	No	197 (45.9)	99 (23.07)	296 (69.0)	
Loss of a parent by HIV/AIDS	Yes	139 (32.4)	106 (24.7)	245 (57.1)	<0.007
	No	128 (29.8)	56 (13.1)	184 (42.9)	
Opportunistic infection	Yes	25 (5.8)	9 (2.1)	34 (7.9)	0.384
	No	242 (56.4)	153 (35.6)	395 (92.1)	
WHO stage	1	43 (10.1)	31 (7.2)	74 (17.3)	0.509
	2	8 (1.9)	5 (1.2)	13 (3.1)	
	3	178 (41.5)	111 (25.9)	289 (67.4)	
	4	37 (8.6)	15 (3.6)	52 (12.2)	

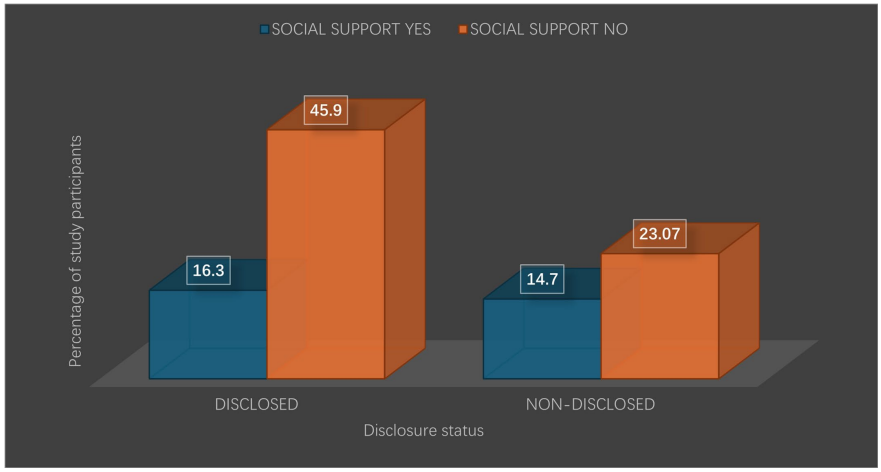
n = frequency; % = percentage.

Table 4. Bivariate and Multivariate analysis of HIV-positive children's sociodemographic characteristics and responses on factors associated with children's disclosure (N = 429).

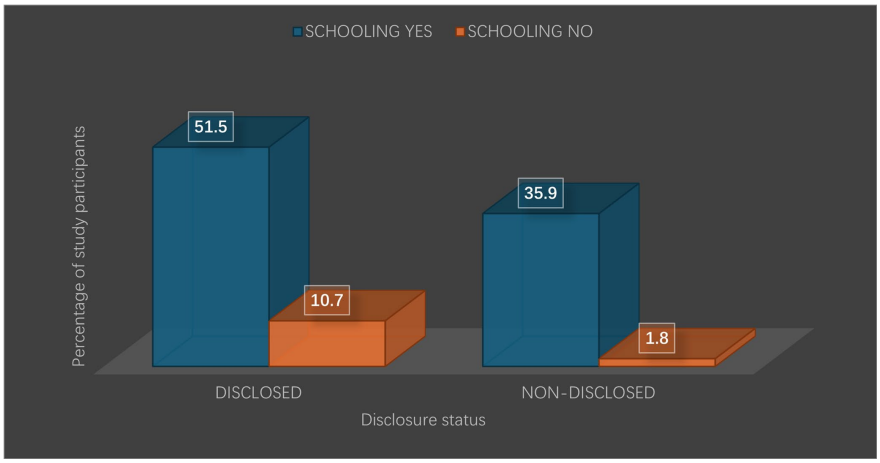
(a)							
Variable	**Categories**	**Disclosed n (%)**	**Non-disclosed n (%)**	**COR (95% CI)**	**p-value**	**AOR (95% CI)**	**p-value**
Age group (years)	5 - 9	1 (0.2)	64 (14.9)	25 (14.1 - 44.5)	0.001	5.8 (4.0 - 7.5)	<0.001
	10 - 14	55 (12.8)	84 (19.6)				
	15 - 19	211 (49.2)	14 (3.2)				
ART initiation (year)	0 - 5	143 (33.3)	126 (29.4)	2.2 (1.57 - 3.1)	0.001	0.089 (0.0 - 4299.4)	0.661
	6 - 10	88 (20.5)	28 (6.5)				
	11 - 15	30 (7.0)	6 (1.4)				
	16 - 19	6 (1.4)	2 (0.5)				
Duration on ART (years)	0 - 1	22 (5.1)	30 (7.0)	1.4 (1.04 - 1.86)	.021	1.7 (0.4 - 6.3)	0.401
	2 - 3	7 (1.6)	5 (1.2)				
	4 - 5	208 (48.5)	107 (24.9)				
	>5	30 (7.0)	20 (4.7)				
Child knows he/she attend clinic for HIV care	Yes	3 (0.7)	157 (36.)	0 (0.0 - 0.002)	0.001	21 (1.2 - 43)	0.048
	No	264 (61.5)	5 (1.2)				
(b)							
Variable	**Categories**	**Disclosed n (%)**	**Non-disclosed n (%)**	**COR (95% CI)**	**p-value**	**AOR (95% CI)**	**p-value**
The child knows he/she has HIV	Yes	3 (0.7)	158 (36)	0.004 (0.0 - 0.01)	0.001	0.000(0.000 - 0.00)	0.999
	No	264 (61.5)	4 (0.9)				
The child knows he/she is taking medication for HIV	Yes	4 (0.9)	157 (36)	0.0 (0.0 - 0.0.002)	0.001	0.000 (0.000 - 0.00)	1.000
	No	263 (61)	5 (1.2)				
Children develop low self-esteem	Yes	165 (38)	130 (30)	0.4 (0.25 - 0.63)	0.001	0.40 (0.23 - 0.69)	<0.001
	No	102 (23)	32 (7.4)				
Children express depression and hopelessness	Yes	155 (36)	228 (53)	0.26 (0.12 - 0.61)	0.002	0.214 (0.003 - 17.730)	0.494
	No	7 (1.6)	39 (9.0)				
Reason for your attendance at clinic visits	Care and treatment	264	81	0.02 (0.003 - 0.37)	0.001	0.000 (0.000 - 0.00)	0.999
	Don't know	3	81				
Child missed medication	Yes	0	98	1.2 (1.1 - 1.2)	0.001	0 (0.0 - 0.0)	0.998
	No	267	64				
Person who disclosed	Parent	3	146	0.1 (0.07 - 0.17)	0.001	0.10 (0.02 - 0.43)	<0.002
	Caregiver	93	1				
	Both	20	6				
	Not applicable	151	9				

n = frequency; % = percentage.

For the available support system, social support for the child stood at just 16.3%, $p < 0.006$ also schooling status of the child was just 51.5%. $p < 0.010$ (Figure 3).



(a)



(b)

Figure 3. Support systems of disclosure among HIV-positive children on ART. (a) Percentage of social support, disclosure and non-disclosure; (b) Percentage of schooling status of child and disclosure.

4. Discussion

This study found that 62.2% of children receiving antiretroviral therapy had been fully informed of their HIV status. This prevalence is higher than pooled estimates reported in systematic reviews from Ethiopia, which reported disclosure rates ranging from 36.8% to 43% [18] [19], and higher than the 34% prevalence reported in South Africa [19]. However, the prevalence observed in this study is comparable to findings from a multicentre study conducted in Abidjan, Côte d'Ivoire and Lomé, Togo, which reported a disclosure prevalence of 61% [20]. The relatively high prevalence observed in the present study may be attributed to the fact that most participants were recruited from referral facilities with better access to pediatric HIV services and healthcare workers who have benefited from several train-

ings aimed at supporting caregivers and adolescents through the disclosure process.

Multivariable logistic regression showed that the child's age was significantly associated with disclosure. Older children were more likely to know their HIV status than younger children. This finding is consistent with studies conducted in Ethiopia and West Africa, which reported that advancing age was among the strongest predictors of disclosure [19] [21]. Caregivers often perceive older children as being more mature and better able to understand the implications of HIV infection and maintain confidentiality.

The study further showed that children who were aware of HIV care and treatment were significantly more likely to know their HIV status. Similar findings have been reported in previous studies, where increased participation in care and interactions with healthcare providers facilitated disclosure [21]**.** It shows that involving children in their care as they grow is important.

Low self-esteem and perceived stigma were negatively associated with disclosure. Fear of stigma and emotional distress remains one of the major barriers preventing caregivers from disclosing HIV status to children [13]. Concerns that children may experience psychological distress, discrimination or inadvertently disclose their status to others often delay the disclosure process. Improving psychosocial support and reducing stigma could help disclosure happen at the right age.

The person responsible for disclosure was also independently associated with disclosure. Previous studies have shown that disclosure is a shared responsibility between caregivers and healthcare providers and that healthcare workers play an important role in preparing both caregivers and children for the disclosure process [22]. However, inadequate training and a lack of clear disclosure guidelines have been identified as barriers to effective disclosure counselling. Closer collaboration between caregivers and healthcare providers could improve disclosure.

Overall, 31.0% of children reported receiving social support, while 87.4% were attending school. These findings suggest that support systems exist for children living with HIV, although social support remains relatively limited. Social support interventions, including psychosocial counselling, support groups and community-based services, have been shown to improve adherence and quality of life among children and adolescents living with HIV [23]. Strengthening these support systems could contribute to improved long-term health and psychosocial outcomes.

5. Conclusion

HIV serostatus disclosure among children receiving antiretroviral therapy is low (62%). Child's age, awareness of HIV care and treatment, low self-esteem and stigma, and the person responsible for disclosure were independently associated with HIV serostatus disclosure among children. Social support and education of the child were the main support systems available. Although support systems exist, psychosocial and family-centered interventions are needed to improved disclosure.

Limitations

1) The cross-sectional design limits the ability to establish causal relationships between the identified factors and HIV serostatus disclosure.

2) Consecutive sampling, a non-probability sampling method, may have introduced selection bias because children attending clinics more frequently had a greater chance of being included in the study.

3) Information on disclosure practices relied largely on caregiver reports and could be affected by recall bias.

Recommendations

1) Healthcare providers should promote age-appropriate and family-centred disclosure counselling to facilitate timely HIV status disclosure among children receiving ART.

2) Psychosocial support services, including stigma reduction interventions and support groups for children and caregivers, should be strengthened to address the emotional challenges associated with disclosure.

3) Multilateral collaboration with Partners like PEPFAR, UNICEF amongst other to reinforce and strengthen available support system to improve the quality of disclosure.

Availability of Data and Materials

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

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Author Contributions

TAA: Conceptualised and designed the study, supervised data collection, performed data analysis and interpretation, and drafted the initial manuscript. **NNF**: Provided methodological guidance, supervised statistical analysis, critically reviewed and revised the manuscript for intellectual content. **ABT**: Contributed to study design, validation of tools, interpretation of findings, and critically revised the manuscript for important intellectual content. All authors have read and approved the final manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

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