


# Acceptance and Experience of HIV-Infected Adolescents in Two Hospitals in Yaoundé

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## Abstract

**Introduction:** Access to antiretroviral drugs has improved the survival of children infected with the Human Immunodeficiency Virus (HIV). As they reach adolescence, they are confronted with various constraints related to the infection and its treatment, in addition to those of the growth period they are going through. The main aim of the study was to assess the acceptance and describe the experience of HIV infection by infected adolescents but also to investigate the factors associated with good acceptance and a positive experience.

**Methodology:** The cross-sectional analytic study concerned HIV-infected adolescents aged 15 to 19 followed up at the Chantal Biya Foundation-Mother and Child Centre (CME-FCB) and the Yaoundé University Hospital Centre (CHUY) between February 2020 and June 2020. The study saw participants complete a questionnaire containing socio-demographic data and assessing acceptance and experience with the infection. Data analysis was accomplished using Epi info software version 7.2.2.6. **Results:** One hundred and thirteen HIV-infected adolescents were included in the study. The sex ratio was 0.68 and the mean age was 17 years. More than half of the adolescents had a good acceptance and positive experience with the infection. Related factors were the adolescent's perception of good health and participation in an association with other infected adolescents. **Conclusion:** Emphasizing the psychological and educational follow-up of infected adolescents and encouraging their participation in associations for adolescents living with HIV could reduce the consequences of poor acceptance and ensure a better transition to adulthood.

## Keywords

HIV, Adolescent, Acceptance, Experience

## 1. Introduction

HIV/AIDS is one of the leading causes of mortality among adolescents in Africa, with adolescents being the only group with mortality figures not declining [1]. Living through this sensitive period of growth with a chronic infection such as HIV hinders the process of development and maturation. Adolescents living with HIV (ALHIV) have to cope with the constraints imposed by the disease, including daily treatment and adverse effects, as well as rigorous care and limited risk-taking. The infection clashes with the realities of adolescence, as it reinforces parental dependence, hinders socialization, imposes several restrictions, creates a sense of fear and limits the feeling of personal freedom [2]. Adolescents infected with HIV live with a chronic illness that can give rise to a sense of shame and, like other people living with HIV (PLHIV), confront them with stigmatization and discrimination [3]. This can have a major influence on their acceptance of the disease, and affect their life experiences.

Acceptance of disease is a process that can manifest itself in several states: shock, denial, revolt, resignation and acceptance, according to the work of Freud and Kübler-Ross in 1975 [4] [5]. The duration and intensity of these states depend on the emotional, affective and cultural aspects of each adolescent, as well as on the attitude of those around him or her [6]. Acceptance is therefore the moment after the announcement when the infected person is calm, cooperative and has found a place in his or her life for the disease as well as for the treatment. Additionally, living with the disease includes the psychological and social experience that comes with the disease. Self-esteem, feelings of shame, depression, socialization and interactions linked to either a good or bad experience, and to the existence of plans for the future [7]. Like all adolescents, those infected with HIV are subject to intrapsychic conflicts inherent to this age group. The burden of a long medical and family history makes them even more susceptible to said conflicts [8]. They have significant difficulties with self-esteem, linked to the state of being HIV-positive. It has been shown that patients with less visible illnesses, which leave little to no mark on the body, have a greater sense of devaluation. This paradox can be explained by the fact that, since comparison with “normal” peers is more evident, the difference is less well tolerated. Follow-up is therefore based more on supportive psychotherapy. It is important to listen to the adolescent’s woes because, in broken families, there’s a lack of openness and overprotection of the child. This makes the suffering go unnoticed [8] given that the HIV-infected adolescent is very vulnerable, not only because of their current period of growth, but also because of the chronic illness with which he or she will have to live, and which is still considered taboo in our cultures, we undertook this study with the general aim of assessing the acceptance and experience of HIV infection among a population of HIV-infected adolescents, to contribute to better care.

## 2. Methods

This was a cross-sectional analytical study with prospective data collection at the

outpatient units of the Chantal Biya Foundation-Mother and Child Center (CME-FCB) and the Yaoundé University Hospital Center (CHUY) over 4 months from February 3 to June 12, 2020. Included in the study were HIV-infected adolescents aged 15 to 19 who had already had their status fully announced and had given verbal assent in addition to informed consent from their parents or guardians. The study was proposed to them as part of a consultation or routine visit. After obtaining the various administrative and ethical authorizations (Authorization No. 2020/056/UDM/PR/CIE, July 20th 2020), data was collected using a pre-tested questionnaire (56 questions), which was anonymous and concise, in compliance with ethical and confidentiality standards. The interview with the adolescent collected their socio-demographic and medical data, *i.e.* age, sex, level of education, area of origin and religion. Socio-demographic data on parents and guardians was also collected, as well as information on the age at which the adolescent announced or discovered his or her status, the person who made the announcement, the time of infection, the route of infection, perceived state of health and participation in HIV support groups and associations. The assessment of the study population's acceptance and experience was facilitated by the ESSI *et al* attitude and practice evaluation grid, adapted for this study [9]. The measurement items were rated as yes or no, and depending on whether it was a question of acceptance, yes was rated at one point and no at zero. Concerning acceptance, good acceptance was defined by an index less than or equal to 5 out of 11, and good acceptance was defined as the state in which the adolescent thinks he or she is infected, a good feeling, good compliance and good infection-related practices. Positive experience was defined by an index greater than or equal to 5 out of 10, and experience was the experience of living with the disease, based on good self-esteem, absence of gloomy thoughts, interaction in one's living environment and the existence of plans for the future. Compliance with treatment was assessed using the GIRERD score, with good compliance marked by a score of zero [10]. The data collected were analyzed using Epi info version 7.2.2.6 and Excel 2016 software. The chi-square test was used to compare proportions, and the Odd Ratio with 95% confidence interval to identify associations between two variables. The significance threshold was set at 0.05.

### 3. Results

A total of 113 adolescents were selected. Their average age was  $17 \pm 1$  years. The most represented age group was between 15 and 17, *i.e.* 61.06%. The sex ratio was 0.68. Infection had occurred via the maternal-foetal route in 74.34 cases ( $n = 84$ ). Nearly 54% of them came from families of forest tribes. Seventy-three teenagers had lost at least one parent, but most were still living with their birth family. All the teenagers remembered the moment they learned of their seropositivity, the majority (83%) between the ages of 8 and 14. The announcement was most often made by a health-care worker (67%) and less frequently by a parent (26%). However, 7% of adolescents had found out on their own by read-

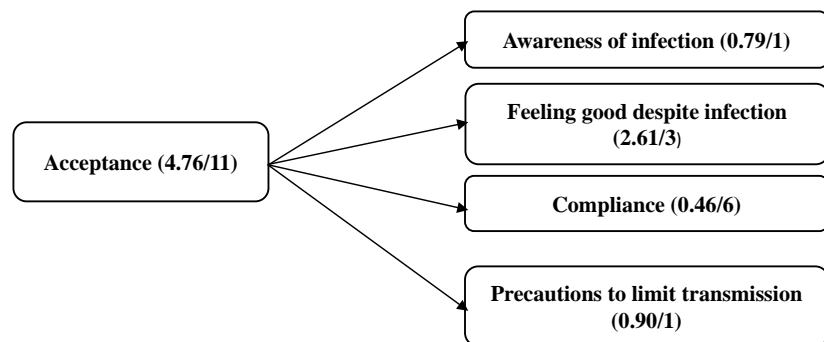
ing their hospital booklets, researching the name of the drug they were being administered, or by deduction from attending discussion groups. Sixty-one (54%) took part in the activities of an association of Adolescents Living with HIV (ALHIV). Eighty-four adolescents perceived themselves to be in good health. Most adolescents (46.01%, n = 52) were compliant. However, 23% (n = 26) had poor compliance. The main reasons given were difficulties with dosing schedules (30.97%) and forgetting to take the medication (30.09%). Among these adolescents, 42.47% had already had sexual intercourse and 25.39% were always using a condom. In terms of acceptance, the majority of adolescents (79.64%, n = 90) thought they were infected with HIV, 75.22% felt calm and at peace with the diagnosis, and 91.15% felt full of life (**Table 1**).

Acceptance was highest in the [17] [18] [19] age group, at 71%. Acceptance of the study population was good, with an index of 4.76 (**Figure 1**).

In terms of life experiences, 76.11% of the ALHIVs said they were like everyone else, and 57.22% were not ashamed of their HIV-positive status. However, 38.05% had already had suicidal thoughts, and 5.30% had attempted suicide at least once. The psychosocial status of the adolescents is displayed in **Table 2**.

**Table 1.** Distribution of adolescents according to whether they thought they were infected and how they felt about their daily lives despite the infection.

Variables	Number (n = 113)	Percentage (%)
<b>Thinks they are HIV-infected</b>		
Yes	90	79.64
No	23	20.35
<b>Calm and at peace</b>		
Yes	85	75.22
No	28	24.77
<b>Nervous</b>		
Yes	6	5.30
No	107	94.69
<b>Lively</b>		
Yes	103	91.15
No	10	8.84



**Figure 1.** Acceptance index.

**Table 2.** Psychosocial status of HIV-infected adolescents.

Variables	Number (n)	Percentage (%)
<b>Psychological state due to infection</b>		
Felt like everyone else	86	76.11
Ashamed of status	48	42.47
Suicidal thoughts	43	38.05
Guilty of status	2	1.76
No influence on sense of fulfilment	39	34.51
An obstacle to future achievements	38	33.62
<b>Social relationships</b>		
Felt lonely.	41	36.28
Felt excluded.	34	30.63
Entertained intimate relationships.	88	78.57
No sexual intercourse	65	58.04
No status sharing.	93	82.30
Support from family and friends	95	84.07

The experience was positive in 71.68% of ALHIV with an index of 7.49 out of 10 (**Figure 2**).

After multivariate analysis, the factors associated with good acceptance and positive adolescent experience were participation in ALHIV activities and self-perceived health status ( $P \leq 0.001$ ) (**Table 3** and **Table 4**).

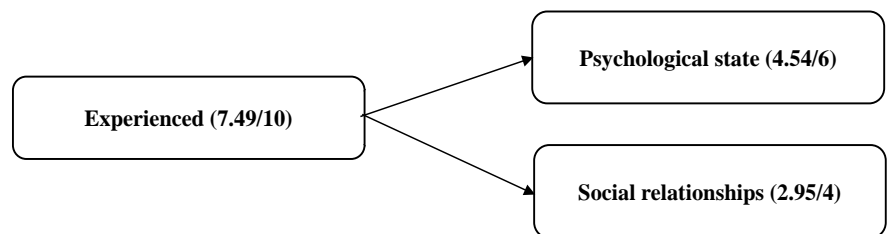
#### 4. Discussion

The aim of this study was to assess the acceptance and experience of HIV infection by infected adolescents in two hospitals in the city of Yaoundé. A total of 113 adolescents were included. Of these 113 adolescents living with HIV (ALHIV), 67 (59%) were female and 46 (41%) male. This indicates that the female population is more affected by HIV infection than the male population, as noted in the 2018 Demographic and Health Survey (EDS) report [11]. The average age was 17 and the sex ratio was 0.68. A study carried out in France found similar results, with a median age of 18 and a sex ratio of 0.7 [12]. This proves that, with the availability of treatment, infected children do indeed reach adolescence and even adulthood. Among adolescents, although 79.74% thought they were infected with HIV and 75.22% led a calm and peaceful life, compliance was unsatisfactory for the majority. The problem of compliance persists in the adolescent population [13]. Only 46.01% had satisfactory compliance. Compliance was poor in 23% of them, and 30.97% had minimal compliance issues. This can be explained by the fact that treatment is experienced as a burden that hinders their freedom [14]. The main reasons given for non-adherence were difficulties with dosing schedules (30.97%) and forgetting to take the medication (30.09%). This may be linked to the fact that when adolescents do not take their treatment, they forget that they have the disease. Feeling comfortable for years without taking ARVs, they feel invincible and refuse to believe that they are carriers of a potentially fatal and transmissible disease. These results are similar to those found in Cameroon

**Table 3.** Association between good acceptance and various socio-demographic and medical characteristics of the study population (n = 113).

	Good acceptance		OR <sup>1</sup> (95%)	P value
	Yes	No		
<b>Age</b>				
[15 - 17]	54	15	0.80 (0.30 - 2.08)	0.64
[18 - 19]	36	8		
<b>Parents' status</b>				
The two infected	42	12	0.80 (0.32 - 2)	0.63
The single mother	30	5	1.80 (0.60 - 5.31)	0.28
No	6	2	0.75 (0.14 - 3.98)	0.51
Don't know	13	4	0.80 (0.23 - 2.73)	0.47
<b>Orphan of at least one parent</b>				
Yes	55	18	0.43 (0.14 - 1.28)	0.13
No	35	5		
<b>HIV-related death of parent</b>				
Yes	34	14	0.34 (0.03 - 3.08)	0.30
No	7	1		
<b>Time of contamination</b>				
Birth	65	15	1.38 (0.52 - 3.67)	0.50
Childhood	13	0	-	0.05
Adolescence	4	3	0.31 (0.06 - 1.49)	0.14
Unknown	9	4	0.52 (0.14 - 1.89)	0.25
<b>Health status</b>				
Good	80	4	37.99 (10.74 - 134.33)	<0.001
Poor	10	19		
<b>Member of a support group</b>				
Yes	56	5	5.92 (2.01 - 17.43)	0.001
No	34	18		

<sup>1</sup>odds ratio.



**Figure 2.** Experience index.

in a reference hospital; the factors associated with non-adherence among HIV-infected adults were forgetfulness (32.8%) and difficulties with dosing schedules (25.8%) [15]. Adolescents in this study had a good acceptance of their illness, which was significantly linked to good auto-perception of health and participation in an ALHIV association or support group. The absence of opportunistic infections or illnesses allows adolescents to trivialize their infection. As a result,

**Table 4.** Association between positive experience and various socio-demographic and medical characteristics of the study population (n = 113).

	Positive experience		OR <sup>1</sup> (95%)	P value
	Yes	No		
<b>Age</b>				
[15 - 17]	46	23	0.51 (0.21 - 1.24)	0.13
[18 - 19]	35	9		
<b>Age at status announcement</b>				
[8 - 14]	67	26	1.10 (0.38 - 3.18)	0.85
[15 - 19]	14	6		
<b>Gender</b>				
Female	44	23	2.09 (0.86 - 5.07)	0.09
Male	36	9		
<b>Parents' status</b>				
Both infected	39	15	1.05 (0.46 - 2.38)	0.90
The mother only	26	9	1.20 (0.49 - 2.97)	0.68
None	6	2	1.20 (0.22 - 6.28)	0.82
Unknown	11	6	0.68 (0.22 - 2.02)	0.48
<b>Orphan</b>				
Yes	49	23	0.61 (0.25 - 1.50)	0.29
No	31	9		
<b>Health Status</b>				
Good	78	6	112.66 (26.28 - 82.82)	<b>&lt;0.001</b>
Poor	3	26		
<b>Member of support group</b>				
Yes	52	8	5.57 (2.21 - 14.01)	<b>0.001</b>
No	31	9		

<sup>1</sup>Odds Ratio.

they neither experience the burden of HIV as a disease nor submit to the other constraints it imposes. Also, the sharing of similar experiences linked to a common pathology during meetings of groups and associations enables adolescents to identify with their peers and offers an opportunity to help each other. The majority of teenagers had good self-esteem (76.11%), claiming to have the same abilities and rights as others. However, 42.47% felt ashamed of their status, and a feeling of guilt was present in 2.65% of teenagers. In the case of sexually-infected teenagers, this feeling can be explained by the relationship between the act committed and the consequences. They blame themselves for having engaged in risky behaviour that is now causing them harm. A total of 34.51% felt that the infection was hindering their personal development, 38.05% had suicidal thoughts, and 5.30% said they had attempted suicide when they stopped taking their medication. This may be linked to the stigma and social exclusion associated with HIV. This makes it difficult for adolescents to accept living with the encumbrance of this infection and the challenges it comes with. The estimated prevalence of suicidal ideation in our population is similar to that found in studies in

China (31.6%) and Ethiopia (33.6%) [16] [17]. Similarly, the prevalence of suicide attempts is consistent with the results of a study in Uganda (3.1%) [18]. As for life experience with HIV, the adolescent population studied had a positive experience with the infection. This experience was linked to the adolescent's good health and membership in a support group or association. The positive experience was influenced by the teenager's state of health, as he or she did not experience the existence of an overwhelming illness. Adolescents who are members of a peer group or association can easily communicate the difficulties they encounter in dealing with a particular problem. In this way, bonds are created through identification with other members, an environment of trust is established and everyone can verbalize their experiences and difficulties and learn how to better overcome them [19] [20].

## 5. Conclusion

The present study revealed that 80% of adolescents had good acceptance and positive experiences. Factors associated with good acceptance and positive experience were good health and participation in ALVIH support groups and associations. It is, therefore, necessary to emphasize the psychological follow-up of infected adolescents and to improve HIV awareness strategies among adolescents by encouraging their participation in ALHIV associations.

## Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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