RESEARCH PAPER

Health Related Quality of Life Disparities Between HIV Infected and Affected Children in Belagavi District, India

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ABSTRACT
Background: Children living with HIV (CLHIV) often face challenges in biological and cognitive development and self-esteem.
Objective: This study compared domains of health-related quality of life (HRQOL) between CLHIV and HIV-affected children (HAC) in Belagavi district, India.
Methodology: The Quality of Life Children Living with HIV/AIDS in India (QOL CHAI) questionnaire assessed HRQOL among 191 CLHIV and 190 HAC aged 8–18 years. Participants reported experiencing issues in the domains of physical, emotional, mental, school, social, and discrimination. Differences in HRQOL scores were analyzed using the Mann-Whitney U test, and linear regression assessed associations with sociodemographic factors.
Results: The mean age was 14.0 ± 3.2 years; CLHIV were older than HAC (14.5 ± 2.9 vs. 12.9 ± 3.4 years; $p < 0.001$). CLHIV scored lower than HAC across all domains (91.2 ± 7.4 vs. 94.6 ± 5.5). Significant differences were found in physical (p=0.00, r=0.26), emotional (p<0.001, r=0.31), symptom (p<0.00, r=0.18), discrimination (p=0.00, r=0.16), and overall HRQOL (p=0.00, r=0.26) for CLHIV. CLHIV reported a higher prevalence of symptoms, including weight loss, limb pain, headache, ear discharge, appetite loss, tingling, shortness of breath, and oral ulcers.
Conclusions: CLHIV experience significantly lower HRQOL, particularly in physical, emotional, and symptom domains, compared to HIV-affected peers.
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Keywords: Health-related quality of life, HRQOL, QOL-CHAI, Children living with HIV, HIV-affected children.

INTRODUCTION

In the late 20th century, HIV/AIDS became one of the most significant public health snags and one of the foremost causes of global death and illness. As reported in 2024, the global population of individuals living with HIV (PLHIV) stands at 40.8 million, which includes 1.4 million children below the age of 15[1], whereas India has an estimated 25.61 million PLHIV.[2] According to 2019 estimates in India, 3.4% of all HIV-positive individuals were children (< 15 years).[3] Owing to the chronic nature of their illness, children living with HIV (CLHIV) experience various physical, mental, and social problems. They experience physical glitches, such as frequent infections, growth disturbances, and malnutrition, as well as mental problems, such as fear, anxiety, depression, and lack of confidence. Social and mental issues can exacerbate the illness, cause pain, and weaken the immune system. [4] Conventional outcome indicators, such as CD4 count and viral load, are insufficient to monitor the state of CLHIV and the effectiveness of treatment. Hence, Health Related Quality of Life (HRQOL), a supplementary health measurement system, has been proposed to weigh outcomes in CLHIV.[5] HRQOL is a reflection of patients' social, psychological, and physical well. Clinicians and public health specialists have used it to calculate the burden of diseases, injuries, treatments, and long-term disabilities that are preventable. In the context of contemporary healthcare theory, it refers to the evaluation of a person's health.[6] HIV-exposed but uninfected children born to one or

more HIV-positive parents are called HIV-affected children (HAC). According to data, patients with HACs may be more susceptible to infection since their immune systems are compromised. Exposure to maternally derived infections, such as drug-resistant strains, may account for the increased morbidity and death in these offspring; further research is necessary. [7]CLHIV consistently scored lower in the physical and psychological HRQOL areas and had behavioral issues when compared to HAC.[8]

Recent studies evaluating HRQOL among CLHIV and HAC have been conducted in developed countries, and HRQOL determinants among CLHIV were drawn from hospitals and other treatment settings. This resulted in the measurement of HRQOL in patients with poor health status.[9] The Belagavi district of North Karnataka is known for its high HIV incidence rate. [10] Hence, the present study was conducted among community-recruited CLHIV and HAC groups in India.

Objectives: The current study aims: a) To outline and compare socio-demographic characteristics and the common disease symptoms of CLHIV and HAC in the Belagavi district; and b)To investigate the relationship between HIV infection status and the several domains of HRQOL in the Belagavi district.

METHODOLOGY

Study Design and Setting

This study, employing a cross-sectional design, was carried out in the Belagavi District of Karnataka, India. Children Living with HIV (CLHIV) were recruited from the list provided by ART centers in the Belagavi district using a consecutive sampling method. HIV-negative children born to one or both HIV-positive parents were defined as HIV-affected children (HAC) and were recruited from the same family.

Children and their caregivers participated in this study. The criteria for including participants in this study specified that they must be CLHIV or HAC, aged between 8 and 18 years, have been under care for no less than one year, and not have any other chronic medical conditions. Conversely, it is required that the caregivers have resided with the child for a minimum duration of one year and have been actively engaged in the child's care. Children with terminal illnesses were excluded from the study. In total, 381 children were recruited, of whom 191 were CLHIV, and 190 were HAC children.

In computing the sample size, the formula used was $n = \frac{z^2 s^2}{d^2}$ at 95% CI, with the error set to 15% of the Standard Deviation (SD).[11] The sample size calculation was adjusted to account for a 10% non-response rate. Consequently, the minimum sample size was determined to be 187, and 191 participants were ultimately enrolled in the study.

Ethical Consideration

The study was approved by KAHER Institutional Ethics Committee (approval number KAHER/EC/20-21/001/04) and received authorization from the Karnataka State AIDS Prevention Society (KSAPS), Bengaluru (approval no. KSAPS/M and E/01/2019-20). All procedures adhered to pertinent guidelines and principles, including the Declaration of Helsinki. Written informed consent was obtained from the caregivers, and assent was secured from the children. Participation in the study was entirely voluntary, with all data being anonymized and securely stored. The research team accessed the information only after the study had concluded. The privacy of participants was maintained throughout the research.

Procedure

The child's socio-demographic details were obtained by interviewing the child/caregiver, and data were collected, including age, sex, school-related information, awareness of the medical condition, and the parents' survival status. Sociodemographic profiles and medical details were recorded using a predesigned, semi-structured data collection tool. The modified B. G. Prasad Classification was utilized to categorize socioeconomic status.[12] The assessment of nutritional status was conducted by determining BMI z-scores. To calculate each participant's BMI, the formula weight (kg)/height (m)² was employed. Subsequently, each BMI figure was transformed into a BMI standard deviation (SD) z-score in accordance with the WHO 2007 growth standards.[13]

The assessment of HRQOL utilized the 45-item QOL-CHAI questionnaire,[14] which addresses domains including physical, social, emotional, school, discrimination, and disease symptoms. This instrument includes both a self-report by the child and a proxy report by the parent, and it has been validated for application among Indian CLHIV. Each item was rated on a 5-point scale, which was then transformed to a 0–100 scale, with higher scores reflecting better HRQOL. The domain of discrimination was evaluated over the past year, while the remaining domains were assessed over the past month, with scores calculated as means. The QOL CHAI self-report question was administered to the children in this study, and the parent proxy report was administered to their caregivers in Kannada and Marathi.

Data Analysis

Descriptive statistics were utilized to summarize the sociodemographic and the clinical features, and normality was assessed using Kolmogorov–Smirnov and Shapiro–Wilk tests. Data

analysis was performed using SPSS version 25.0, with non-parametric tests due to non-normal distributions. Group comparisons were performed using the Mann–Whitney U test, and multivariate linear regression with backward elimination was utilized at $p < 0.05$.

RESULTS

A total of 381 participants were involved in the study, including 191 children living with HIV (CLHIV) and 190 HIV-affected children (HAC). Table 1 demonstrates the sociodemographic features of the study participants, with the overall mean age being 14.0 ± 3.2 years. CLHIV were significantly older than HAC (14.5 ± 2.9 vs. 12.9 ± 3.4 years; $p < 0.001$). Sex distribution differed significantly between the two groups ($p = 0.016$), with a higher proportion of males among CLHIV (60.2%) and females among HAC (52.1%). A substantially higher proportion of CLHIV had both parents deceased (34.0%) than HAC (10.0%), whereas a greater proportion of HAC had both parents alive (43.2% vs. 19.9%, respectively). Most HAC resided with their mothers (71.6%), while a notable proportion of CLHIV lived in orphanages (31.9%) without maternal care. For the majority of HAC, specifically 70.5%, mothers were the main caregivers, while nearly 46.0% of CLHIV were looked after by individuals who were not family members. Approximately 12.6% of children were school dropouts, with comparable proportions in both groups; however, the difference was not significant. About 9.4% of CLHIV had severe thinness, as compared to HAC, were 3.6% which was significant.

Table 2 presents the prevalence of symptoms among CLHIV and HAC, along with the p-values from significance tests of comparing the two groups. Symptoms experienced in the preceding month were compared between the CLHIV and HAC groups. A statistically significant higher proportion of CLHIV as compared to HAC reported weight loss (5.2% vs. 1.1%; p=0.02), pain in limbs (19.4% vs. 9.5%; p=0.00), headache (17.8% vs. 13.2%; p=0.04), ear discharge (13.1% vs. 3.2%; p=0.00), loss of appetite (7.3% vs. 1.1%; p=0.02), tingling sensations (13.1% vs. 6.3%; p=0.03), shortness of the breath (8.9% vs. 1.6%; p=0.03), and oral ulcers (16.8% vs. 5.8%; p=0.01).

Table 3 demonstrates that the overall mean QOL-CHAI score, as well as the mean scores in each of the domains, were higher among HAC compared to CLHIV. In the simple linear regression analysis, HIV infection was associated with the lower mean scores across the physical, emotional, social, school, and overall domains than those observed in HAC. However, this association was not statistically significant. After adjusting for age, sex, parental status, and per the capita family income, the direction of the association remained consistent, indicating poorer QOL among CLHIV than among HAC. However, none of the associations were statistically significant after adjustments.

A comparison of HRQOL scores using self-reports and parent proxy reports, as shown in Table 5, revealed that CLHIV had significantly lower median scores than HIV-affected children (HAC) in the physical (p= 0.00, r= 0.26), emotional (p<0.001, r= 0.31), symptom (p<0.00, r= 0.18), discrimination (p= 0.00, r= 0.16), and overall (p= 0.00, r= 0.26) domains. The effect sizes in this study ranged from small to moderate. No statistically significant differences were identified in the social (p= 0.11, r= 0.08) and school (p= 0.10, r= 0.08) domains. Similarly, parent proxy reports indicated significantly lower HRQOL scores among CLHIV than among HAC in the physical (p= 0.00, r= 0.18), emotional (p=0.01, r=0.13), school (p= 0.00, r= 0.16), and overall domains (p<0.00, r= 0.29), with small-to-moderate effect sizes.

Table 1: Socio-Demographic Characteristics of the Study Participants (N=381)

Variable	CLHIV (N = 191)	HAC (N = 190)	Overall (N = 381)	P-Value
Age (years), mean ± SD	14.5 ± 2.9	12.9 ± 3.4	14.0 ± 3.2	<0.001
Gender, n (%)				0.016
Male	115 (60.2)	91 (47.9)	206 (54.1)	
Female	76 (39.8)	99 (52.1)	175 (45.9)	
Parental living status, n (%)				<0.001
Only mother alive	74 (38.7)	65 (34.2)	139 (36.5)	
Only father alive	14 (7.4)	24 (12.6)	38 (10.0)	
Both parents alive	38 (19.9)	82 (43.2)	120 (31.5)	
Both parents deceased	65 (34.0)	19 (10.0)	84 (22.0)	
Living arrangement, n (%)				<0.001

With mother at home	72 (37.7)	136 (71.6)	208 (54.6)	
Without mother at home	20 (10.5)	27 (14.2)	47 (12.3)	
Hostel	30 (15.7)	8 (4.2)	38 (10.0)	
Other home	6 (3.2)	3 (1.6)	9 (2.3)	
Orphanage	61 (31.9)	15 (7.9)	76 (20.0)	
Others	2 (1.0)	1 (0.5)	3 (0.8)	
Religion, n (%)				0.018
Hindu	154 (80.6)	164 (86.2)	318 (83.5)	
Muslim	5 (2.6)	10 (5.3)	15 (3.9)	
Scheduled caste	18 (9.4)	4 (2.1)	22 (5.8)	
Scheduled tribe	11 (5.9)	6 (3.2)	17 (4.5)	
Jain	2 (1.0)	3 (1.6)	5 (1.3)	
Others	1 (0.5)	3 (1.6)	4 (1.0)	
Primary caregiver, n (%)				<0.001
Mother	75 (39.4)	134 (70.5)	209 (54.9)	
Stepmother	1 (0.5)	6 (3.2)	7 (1.8)	
Father	4 (2.1)	12 (6.3)	16 (4.2)	
Guardian	23 (12.0)	15 (7.9)	38 (10.0)	
Unrelated caregiver	88 (46.0)	23 (12.1)	111 (29.1)	
Educational institution, n (%)				0.642
Government	140 (73.4)	140 (73.7)	280 (73.5)	
Private	25 (13.0)	28 (14.7)	53 (13.9)	
School dropout	26 (13.6)	22 (11.6)	48 (12.6)	
Per capita income (INR), n (%)				0.23
<1369	99 (51.8)	97 (51.2)	196 (51.4)	
1370–2738	55 (28.8)	66 (34.7)	121 (31.8)	
2739–4564	23 (12.0)	21 (11.1)	44 (11.5)	
>4565	14(7.4)	6(3.2)	20(5.2)	
BMI for age				0.003
Severe Thinness	18(9.4)	7(3.6)	25(6.5)	
Thinness	26(13.7)	21(11.1)	47(12.3)	
Normal	135(70.7)	152(80.0)	287(75.2)	
Overweight	11(5.7)	8(4.2)	19(4.8)	
Obesity	1(0.5)	0(0)	1(0.2)	

Table 2: Comparison of Prevalence of Symptoms among CLHIV and HAC

Symptom	**CLHIV N (%)**	**HAC N (%)**	**Overall N (%)**	**P-Value**
Fever				0.074
No	164 (85.9)	178 (93.7)	342 (89.8)	
Yes	27 (14.1)	12 (6.3)	39 (10.2)	
Common cold				0.09
No	143 (74.9)	149 (78.4)	292 (76.6)	
Yes	48 (25.1)	41 (21.6)	89 (23.4)	
Weight loss				0.021
No	181 (94.8)	188 (98.9)	369 (96.9)	
Yes	10 (5.2)	2 (1.1)	12 (3.1)	
Diarrhoea				0.542
No	186 (97.4)	179 (94.2)	365 (95.8)	
Yes	5 (2.6)	11 (5.8)	16 (4.2)	

Pain in limbs				0.002
No	154 (80.6)	172 (90.5)	326 (85.6)	
Yes	37 (19.4)	18 (9.5)	55 (14.4)	
Headache				0.045
No	157 (82.2)	165 (86.8)	322 (84.5)	
Yes	34 (17.8)	25 (13.2)	59 (15.5)	
Skin rash				0.233
No	163 (85.3)	170 (89.5)	333 (87.4)	
Yes	28 (14.7)	20 (10.5)	48 (12.6)	
Vomiting				0.055
No	180 (94.2)	175 (92.1)	355 (93.2)	
Yes	11 (5.8)	15 (7.9)	26 (6.8)	
Ear discharge				0.005
No	166 (86.9)	184 (96.8)	350 (91.9)	
Yes	25 (13.1)	6 (3.2)	31 (8.1)	
Loss of appetite				0.024
No	177 (92.7)	188 (98.9)	365 (95.8)	
Yes	14 (7.3)	2 (1.1)	16 (4.2)	
Abdominal pain				0.226
No	174 (91.1)	182 (95.8)	356 (93.4)	
Yes	17 (8.9)	8 (4.2)	25 (6.6)	
Yellowish discoloration				0.155
No	191 (100.0)	188 (98.9)	379 (99.5)	
Yes	0 (0.0)	2 (1.1)	2 (0.5)	
Dizziness				0.076
No	182 (95.3)	185 (97.4)	367 (96.3)	
Yes	9 (4.7)	5 (2.6)	14 (3.7)	
Throat symptoms				0.200
No	182 (95.3)	187 (98.4)	369 (96.9)	
Yes	9 (4.7)	3 (1.6)	12 (3.1)	
Abdominal symptoms				0.223
No	188 (98.4)	189 (99.5)	377 (99.0)	
Yes	3 (1.6)	1 (0.5)	4 (1.0)	
Shortness of breath				0.031
No	174 (91.1)	187 (98.4)	361 (94.8)	
Yes	17 (8.9)	3 (1.6)	20 (5.2)	
Tingling				0.031
No	166 (86.9)	178 (93.7)	344 (90.3)	
Yes	25 (13.1)	12 (6.3)	37 (9.7)	
Oral ulcers				0.018
No	159 (83.2)	179 (94.2)	338 (88.7)	
Yes	32 (16.8)	11 (5.8)	43 (11.3)	

Table 3: Parameter Estimates From Unadjusted and Adjusted Linear Regression Analyses to Evaluate the Association of HIV Infection Status with QOL-CHAI Scale Scores (N = 381)

HRQOL Domain		**Mean (Sd)**		**Unadjusted Analysis**		**Adjusted Analysis**	
Scale	**No of Items**	**CLHIV**	**HAC**	**Parameter Estimate**	**95% CI**	**Parameter Estimate**	**95% CI**

Physical	8	92.0(11.6)	97.4(6.5)	-5.4	-7.3,5.4	-1.3	2.7,0.0
Emotional	5	85.2(13.3)	91.4(15.5)	-3.3	-5.0,1.7	-3.9	6.1,1.8
Social	5	95.3(11.7)	96.5(11.8)	-0.7	-1.9,0.5	-0.9	2.6,0.7
School	5	77.7(26.2)	80.7(26.6)	-1.2	-3.9,1.4	-4.1	7.7,0.6
Symptom	18	93.5(7.5)	96.5(4.1)	0.7	0.0,1.5	0.5	0.4,1.5
Discrimination	4	98.6(5.7)	99.3(7.4)	4.5	0.5,-1.4	0.4	0.8,1.7
Overall	45	91.2(7.4)	94.6(5.5)	-0.6	-1.4,0.2	-0.9	1.9,0.0

Negative parameter estimates specify that HIV infection is associated with poorer functioning and vice versa a Adjusted for child's age, gender, parental status, and per capita family income

Table 4: Comparison of HRQOL (Self-Report and Parent Proxy Report) between CLHIV and HAC

HRQOL Domain	**CLHIV**	**HAC**	**Z Value**	**P Value**	**Effect Size r=z/√n**
Scale	**Median(IQR)**	**Median(IQR)**			
Physical	100(12.5)	100(3.1)	-5.06	0.001	0.26
Emotional	90(25.0)	100(10.0)	-6.01	0.0001	0.31
Social	100(5.0)	100(0.0)	-1.62	0.11	0.08
School	90(35.0)	95(30.0)	-1.67	0.1	0.08
Symptom	95.8(11.1)	97.2(5.6)	-3.56	0.0001	0.18
Discrimination	100(0.0)	100(0.0)	-2.71	0.007	0.16
Overall	93.3(8.9)	95.6(5.7)	-5.1	0.001	0.26
Proxy Parent report					
	CLHIV	**HAC**	**Z Value**	**P Value**	**Effect Size r=z/√n**
Scale	**Median(IQR)**	**Median(IQR)**			
Physical	100(9.4)	100(0.0)	-3.61	0.001	0.18
Emotional	90(20.0)	100(20.0)	-2.56	0.01	0.13
Social	100(0.0)	100(0.0)	-0.5	0.59	0.03
School	90(45.0)	100(20.0)	-3.2	0.001	0.16
Overall	92.4(14.1)	97.8(8.7)	-5.7	0.0001	0.29

CI=confidence interval; HRQOL=Health-related quality of life

DISCUSSION

The HRQOL of CLHIV and HAC was evaluated in this study. Despite increased ART access, CLHIV showed noticeably worse HRQOL than HAC in the physical, emotional, social, school, and symptom-related dimensions, suggesting that

pediatric HIV continues to impose considerable psychosocial and functional difficulties. Similar results have been shown in Indian research involving CLHIV and HAC, where lower HRQOL was noted in several areas, especially in school and physical functioning.[9,14] Similar sociocultural contexts, the prevalence of chronic illness, stigma associated with families, access to healthcare, and educational difficulties seen in HIV-affected communities could all be contributing factors to the similarity of the findings.

The poor physical functioning observed among CLHIV in the present study may be attributable not only to HIV disease progression but also to recurrent infections, nutritional deficiencies, long-term medication use, ART-related adverse effects, and reduced participation in physical and recreational activities. Comparable findings have been reported in studies from India and Thailand, where symptoms such as fatigue, fever, limb pain, mouth ulcers, respiratory complaints, appetite loss, and generalized weakness were associated with lower HRQOL and greater symptom load.[9,14-15]

School functioning was identified as one of the most significantly impaired HRQOL areas among CLHIV in this study. Similar findings have been recorded in studies from India and Nigeria, where CLHIV displayed considerably worse school functioning than HAC.[9,16-17] Frequent absenteeism due to hospital visits, chronic sickness load, exhaustion, poor focus, developmental delays, psychological stress, and HIV-related neurocognitive impairment may lead to poor academic performance and delayed educational progression.[9,16] Notably, decreased school functioning remained even when overall HRQOL improved, indicating that educational challenges may linger despite clinical stability and ART availability.[17] Variations in the level of impairment reported in different studies might be due to varying degrees of access to educational support, psychosocial treatments, and comprehensive HIV healthcare services.

The present study also demonstrated significantly poorer emotional, psychosocial, and social functioning among CLHIV than among HAC. Similar observations have been reported in studies from India, Thailand, China, and Nigeria, where HIV-infected children and adolescents experienced greater emotional distress, psychosocial burden, low self-esteem, social insecurity, and impaired peer relationships.[9,16-19] These findings suggest that the psychological impact of HIV extends beyond physical illness and may be influenced by the chronic disease burden, perceived stigma, fear of disclosure, uncertainty regarding the future, dependence on caregivers, and social isolation. Supporting these observations, a qualitative study of adolescents living with HIV described experiences of secrecy surrounding HIV status, fear of rejection, anxiety regarding future relationships, and distress related to social acceptance, providing important contextual insight into the poorer emotional functioning observed quantitatively in the present study.[20]

Despite discrimination scores being relatively superior to those of other HRQOL domains in both groups, CLH exhibited markedly worse discrimination domain scores than HIV-affected children in self-reports. The comparatively higher scores may indicate underreporting of overt discrimination due to concealment of HIV status and fear of disclosure, findings similar to those observed in previous Indian studies. [15,20] While non-disclosure may shield children from direct stigma in the near term, it can also cause mental suffering, social anxiety, and fear of unintentional exposure to the disease. In contrast, research conducted in settings with organized HIV -care programs found that teenagers receiving long-term ART, counselling, peer-support interventions, and adolescent-friendly HIV services performed much better psychosocially.[14,21] These disparities may reflect changes in psychological support systems, disclosure counselling, family support, and hospital infrastructure across locales.

In this study, a noteworthy finding was that HAC exhibited a decline in HRQOL, although the extent of this decline was not as pronounced as that observed in the CLHIV group. Similar observations have been reported in studies from China and Nigeria, as well as in a systematic review highlighting that HIV-affected children frequently experience multidimensional vulnerabilities, including poverty, stigma, trauma, parental illness, orphanhood, and family instability.[18,19,22] These findings suggest that the psychosocial impact of HIV extends beyond infected individuals and affects the entire family. The reduced HRQOL among HIV-affected children in the present study may therefore be explained by emotional insecurity, caregiving responsibilities, disrupted family relationships, financial stress, and fear of parental illness or death. [18]

The present study further supports the growing evidence that clinical and immunological markers alone may not adequately reflect the lived experiences and overall well-being of CLHIV. Previous studies have reported weak or inconsistent associations between CD4 count, viral suppression, clinical staging, and the HRQOL domains.[9,18,21,23] Another study demonstrated that even children without severe HIV symptoms or advanced disease experienced significantly impaired HRQOL, suggesting that psychosocial and functional difficulties may persist despite apparent clinical

stability.[23] These findings suggest that the emotional, social, and educational challenges faced by CLHIV may not improve in tandem with immunological recovery or viral suppression, highlighting the necessity of integrating routine HRQOL assessments into pediatric HIV care alongside traditional biological indicators.

In the present study, poorer HRQOL among CLHIV appeared to be influenced by caregiver- and family -related factors. Previous research has found that caregiver stress, low nutritional status, family disturbance, and caregiver instability are major predictors of decreased HRQOL and psychosocial functioning in CLHIV and HAC.[17-19] In contrast, supportive family environments, better caregiver QOL, and increased caregiver involvement were associated with improved psychosocial well-being among affected children.[18] These findings stress the relevance of the home environment in developing children's emotional and social functioning and underline the necessity for family -centered paediatric HIV treatments that address caregiver support, psychological therapy, nutrition, and socioeconomic concerns.

Overall, the results of this study support the necessity of comprehensive pediatric HIV care that goes beyond survival and viral suppression. To enhance the long-term well-being of CLHIV and HAC, comprehensive interventions that include psychological counseling, stigma reduction, school-based assistance, adolescent-friendly services, nutritional support, caregiver strengthening, and peer support programs are crucial. Optimizing HRQOL should become an equally significant aim in juvenile HIV care as survival among CLHIV continues to improve in the ART era.

Strengths and Limitations: The research included both CLHIV and those HAC from community settings, rather than clinical ones. It incorporated both self-reports and parent proxy reports to offer a thorough, multi-perspective evaluation of health-related quality of life (HRQOL). The limitations of the study were probable reporting bias due to self-report measures, specifically in sensitive domains such as discrimination and emotional well-being.

CONCLUSION

The study concludes that Children living with HIV (CLHIV) in the Belagavi district have a lower health-related quality of life (HRQOL) than HIV-affected children (HAC), particularly in the physical, emotional, symptom, discrimination, and overall domains. Despite some sociodemographic variances, CLHIV consistently reported more symptoms and poorer quality of life outcomes. These findings highlight the necessity for targeted interventions aimed at enhancing the physical and mental well-being of CLHIV, thereby improving their overall quality of life.

Conflict of Interest: The authors declare no conflicts of interest.

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Approval of Institutional Ethical Review Board: Approval for this study was obtained from the KAHER Institutional Ethics Committee (approval no. KAHER/EC/20-21/001/04)

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Author Contributions: The first author collected data. entered the data, analyzed the data, and wrote the manuscript. The second author guided and supervised this study. The third author drafted the manuscript.

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