

Rethinking suddenness in psychotraumatic vulnerability among adolescents living with HIV in Congo-Brazzaville: family adversity and EMDR outcomes

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ABSTRACT

Background: Psychological trauma has traditionally been defined as the consequence of a sudden, exceptional, and identifiable event. Increasing evidence, however, suggests that prolonged relational adversity may also produce trauma-related psychological suffering. Adolescents living with HIV (ALHIV) in sub-Saharan Africa are frequently exposed to chronic experiences of stigma, discrimination, family disruption, emotional neglect, and social exclusion, which may progressively compromise their mental health. A mixed-methods observational study was conducted among 74 adolescents living with HIV receiving care at the Ambulatory Treatment Centre (CTA) in Brazzaville, Republic of the Congo. Sociodemographic and clinical data, caregiving arrangements, HIV disclosure status, self-esteem (Rosenberg Self-Esteem Scale), and depressive symptoms (Hamilton Depression Rating Scale) were assessed. Adolescents presenting psychotraumatic manifestations received an EMDR-informed psychological intervention and were reassessed after treatment. Psychotraumatic manifestations were identified in 54 of the 74 participants (72.8%). Adolescents living with non-parental caregivers were considerably more likely to present trauma-related manifestations than those living with their biological parents. Stigmatization, discrimination, maltreatment, and emotional neglect were the most frequently reported psychosocial adversities. At baseline, 62.9% of the affected adolescents had low or very low self-esteem. Following the EMDR-informed intervention, 81.5% achieved clinical remission, 81.8% no longer presented clinically significant depressive symptoms, and marked improvements in self-esteem were observed. The findings suggest that psychotraumatic vulnerability among adolescents living with HIV is more strongly associated with cumulative relational adversity than with exposure to a single sudden traumatic event. They support the relevance of developmental and relational approaches to trauma and indicate that trauma-informed psychological interventions such as EMDR may contribute to improved mental health outcomes within adolescent HIV care. The study also proposes the concept of progressive trauma as an interpretative framework for understanding trauma-related suffering resulting from chronic relational adversity.

KEYWORDS: Adolescents living with HIV; psychological trauma; cumulative adversity; EMDR; stigma; attachment; self-esteem; Congo-Brazzaville.

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I. INTRODUCTION

Psychological trauma has historically been conceptualized through the experience of a sudden and overwhelming event that exceeds an individual's capacity for adaptation. From early clinical descriptions of traumatic neuroses to contemporary diagnostic classifications, trauma has often been associated with exceptional situations involving threat, violence, or a direct confrontation with death or serious injury. This event-based perspective has considerably contributed to the recognition and treatment of post-traumatic stress reactions, particularly in relation to war experiences, accidents, natural disasters, and interpersonal violence (1).

Within this classical framework, Terr (1991) proposed a distinction between two major forms of psychological trauma. Type I trauma refers to the consequences of a single, unexpected, and clearly identifiable traumatic event, such as an accident, assault, or disaster. In contrast, Type II trauma results from repeated or prolonged exposure to adverse experiences, particularly within interpersonal relationships, such as chronic abuse, neglect, or persistent insecurity during childhood development (2). This distinction represented an important theoretical shift by suggesting that psychological suffering may emerge not only from isolated catastrophic events but also from cumulative experiences occurring over time.

Subsequent developments in trauma research have further expanded this perspective. Herman introduced the concept of complex trauma to describe the psychological consequences of prolonged interpersonal adversity, particularly when traumatic experiences occur within relationships characterized by dependency, power imbalance, or lack of protection (3). Unlike Type I trauma, which is often linked to a clearly defined event, complex trauma involves repeated experiences that progressively influence emotional regulation, self-perception, interpersonal relationships, and identity development.

Similarly, developmental trauma perspectives have emphasized that chronic relational adversity may affect psychological development even when no single traumatic event can be identified. Experiences such as emotional neglect, rejection, inconsistent caregiving, humiliation, and chronic social threat may gradually undermine a child's sense of safety and belonging (4,5). Attachment theory provides an important framework for understanding these processes, suggesting that repeated disruptions in caregiver availability may influence internal working models of the self and others, increasing vulnerability to later psychological difficulties (6,7).

Neurobiological research has also contributed to this expanded understanding of trauma. Chronic exposure to stress has been associated with persistent activation of stress-response systems, emotional dysregulation, and cumulative physiological burden, a process described as allostatic load (8). These findings suggest that psychological harm may result from prolonged exposure to adversity rather than exclusively from a single dramatic event.

However, despite these advances, many clinical and research approaches continue to emphasize event-based conceptualizations of trauma. This emphasis may create difficulties when examining populations exposed primarily to chronic social, relational, and developmental adversity. In such contexts, individuals may present trauma-related symptoms without reporting a single event that corresponds to traditional definitions of trauma exposure.

The present study builds upon these theoretical developments by exploring the notion of progressive trauma, understood here as a gradual accumulation of psychologically harmful relational experiences that progressively weaken adaptive capacities. This concept does not replace established trauma categories, nor does it propose a new diagnostic entity. Rather, it seeks to describe a clinical pathway through which repeated adversity, particularly within interpersonal and social environments, may contribute to trauma-related suffering.

This perspective is particularly relevant for adolescents living with HIV (ALHIV) in sub-Saharan Africa. Beyond the biological challenges associated with HIV infection, these adolescents frequently encounter multiple psychosocial adversities, including stigma, disclosure difficulties, parental illness or loss, changes in caregiving arrangements, discrimination, and social exclusion (9,10). These experiences often occur repeatedly across developmental stages and may accumulate throughout adolescence, a period already characterized by significant identity and emotional changes.

The psychosocial context of HIV during adolescence provides an important framework for examining cumulative relational adversity. Although antiretroviral therapy has considerably improved survival and quality of life, adolescents living with HIV continue to experience challenges that extend beyond biomedical management. In many sub-Saharan African settings, HIV remains associated with social stigma, secrecy surrounding disclosure, fear of rejection, family disruption, and economic vulnerability (9–11). These experiences frequently occur within everyday environments such as families, schools, peer groups, and communities, creating conditions of prolonged psychosocial stress.

Caregiving arrangements represent a particularly important dimension of this vulnerability. Due to parental illness, death, or social circumstances related to HIV, many adolescents are raised by grandparents, extended family members, or other guardians. These alternative caregiving arrangements may provide essential protection and continuity of care; however, they may also involve relational instability, emotional distance, differential treatment, or reduced psychological security. From an attachment perspective, repeated disruptions in caregiving relationships may affect the development of emotional regulation capacities and self-representations, particularly during adolescence, a developmental period characterized by increasing demands for autonomy and identity consolidation (6,7).

Previous studies conducted in sub-Saharan Africa have documented high levels of psychological distress among adolescents living with HIV, including depression, anxiety, suicidal ideation, emotional difficulties, and reduced self-esteem (12,13). However, these psychological outcomes are often examined through general mental health frameworks, while the contribution of chronic relational adversity to trauma-related suffering remains insufficiently explored. Consequently, some forms of distress experienced by ALHIV may remain clinically under-recognized when assessment relies exclusively on the presence of a single traumatic event.

The African context is particularly relevant for examining these questions because psychological vulnerability is frequently shaped by social and relational environments. In contexts characterized by limited mental health resources, family transitions, poverty-related stress, and persistent stigma, adolescents may experience cumulative forms of adversity that are difficult to categorize within traditional trauma models.

Investigating these pathways may contribute to a more culturally and contextually sensitive understanding of trauma-related suffering.

In the Republic of the Congo, empirical research examining psychotraumatic manifestations among adolescents living with HIV remains limited. Existing studies have primarily focused on treatment adherence, disclosure, psychosocial adjustment, and quality of life. However, clinical observations within HIV care services suggest that many adolescents present symptoms associated with trauma-related distress, including emotional insecurity, social withdrawal, low self-worth, anxiety, and difficulties related to interpersonal relationships, even in the absence of a clearly identifiable traumatic event.

Among trauma-focused interventions, Eye Movement Desensitization and Reprocessing (EMDR) has demonstrated effectiveness in the treatment of post-traumatic stress disorder and other trauma-related conditions (14). Based on the Adaptive Information Processing (AIP) model, EMDR proposes that psychological suffering may result from inadequately processed distressing memories that continue to influence present emotional functioning (15). Although initially developed for single-event trauma, EMDR has increasingly been applied to more complex presentations involving repeated interpersonal adversity and developmental trauma (16).

However, the application of EMDR among adolescents living with HIV exposed primarily to chronic relational adversity remains insufficiently documented, particularly in African clinical settings. Examining its potential contribution within this population may provide valuable information regarding trauma-informed approaches adapted to culturally specific contexts.

Therefore, the present study aimed to investigate psychotraumatic vulnerability among adolescents living with HIV receiving care at the Ambulatory Treatment Centre (CTA) in Brazzaville, Republic of the Congo. Specifically, the study pursued three objectives: (1) to describe the prevalence and psychosocial characteristics of trauma-related manifestations among adolescents living with HIV; (2) to examine the relationship between caregiving arrangements and psychotraumatic vulnerability; and (3) to evaluate psychological changes following an EMDR-informed intervention.

By addressing these objectives, this study seeks to contribute to current discussions on trauma conceptualization by examining whether trauma-related suffering may emerge through cumulative relational adversity rather than exclusively through sudden and identifiable traumatic events.

Review of Theoretical Positions

The conceptualization of psychological trauma has undergone significant transformations over the past decades. Early approaches primarily focused on the impact of extraordinary and threatening events, emphasizing the relationship between exposure to a traumatic incident and subsequent psychological symptoms. This perspective remains central in contemporary diagnostic classifications, particularly in relation to post-traumatic stress disorder (PTSD), where exposure to death, serious injury, or sexual violence constitutes a fundamental criterion (1).

However, clinical observations and developmental research have progressively demonstrated that psychological suffering may also emerge from experiences that are repetitive, interpersonal, and embedded within everyday environments. This evolution has challenged the idea that trauma necessarily requires a single identifiable event and has encouraged the development of broader theoretical models.

The distinction between Type I and Type II trauma represents one of the earliest attempts to differentiate acute traumatic experiences from prolonged adversity (2). Type I trauma refers to a single traumatic episode that is unexpected and clearly identifiable, such as a natural disaster, accident, or violent assault. In contrast, Type II trauma develops through repeated or prolonged exposure to adverse experiences, commonly occurring in contexts of chronic interpersonal threat, including repeated abuse, neglect, abandonment, or persistent insecurity.

The concept of complex trauma further expanded the understanding of prolonged adversity. Herman (1992) proposed that individuals exposed to sustained interpersonal trauma may develop difficulties extending beyond classical post-traumatic symptoms, including emotional dysregulation, negative self-perception, interpersonal difficulties, and disturbances in identity formation (3). Courtois and Ford emphasized that complex trauma should be understood not merely as a collection of traumatic events but as a developmental process affecting emotional, cognitive, relational, and biological functioning (4).

Attachment theory provides another essential framework for understanding how relational experiences influence psychological vulnerability. Bowlby proposed that early interactions with caregivers contribute to the formation of internal working models that shape expectations about oneself and others (5). Secure attachment develops when caregivers provide consistent protection, emotional availability, and responsiveness. Conversely, repeated disruptions in caregiving relationships may contribute to insecurity, difficulties in emotional regulation, and negative self-representations. Ainsworth's work demonstrated the importance of caregiver sensitivity and relational consistency in children's emotional development (6).

In adolescence, attachment processes remain influential because this developmental stage involves major transformations in identity, autonomy, and social belonging. For adolescents living with HIV, caregiving instability resulting from parental illness, death, or family restructuring may represent an additional psychological burden.

Beyond psychological theories, neurobiological research has provided additional explanations regarding the impact of prolonged adversity. McEwen introduced the concept of allostatic load to describe the cumulative physiological burden resulting from repeated activation of stress-response systems (8). While adaptive stress responses are essential for survival, chronic exposure to stressful conditions may progressively exceed the organism's capacity for adaptation.

For adolescents living with HIV, chronic stress may emerge from multiple interacting sources: concerns related to illness, fear of disclosure, experiences of stigma, family instability, and uncertainty regarding social acceptance. These experiences may not always correspond to classical definitions of traumatic exposure; however, their cumulative psychological impact may contribute to significant distress.

HIV during adolescence represents not only a medical condition but also a complex psychosocial experience. Advances in antiretroviral treatment have transformed HIV into a manageable chronic condition, yet social representations surrounding HIV continue to generate fear, stigma, and exclusion. Stigma is particularly important because it operates as a relational stressor. Unlike a single traumatic event, stigma often appears through repeated interactions, subtle forms of rejection, silence, avoidance, or social devaluation. Over time, these experiences may influence self-esteem, identity construction, and expectations regarding interpersonal relationships.

Based on the theoretical perspectives discussed above, the present study proposes the concept of progressive trauma as an interpretative framework for understanding psychological suffering emerging from cumulative relational adversity. Progressive trauma refers to a gradual process through which repeated experiences of insecurity, rejection, stigma, emotional neglect, or relational disruption progressively affect psychological adaptation.

This concept shares important similarities with Type II trauma, complex trauma, and developmental trauma perspectives. However, it emphasizes the temporal dimension of vulnerability: psychological suffering may emerge progressively when repeated relational stressors exceed the individual's adaptive capacities. Progressive trauma should not be considered a new psychiatric diagnosis or a replacement for established trauma classifications. Rather, it represents a conceptual tool designed to examine forms of suffering that may remain insufficiently recognized when trauma assessment focuses exclusively on sudden events.

Within the context of adolescents living with HIV, this framework suggests that psychological vulnerability may result from the interaction between biomedical challenges and accumulated social-relational adversities. The central research question is therefore not only whether adolescents have experienced a traumatic event, but also how repeated experiences of insecurity, stigma, and relational disruption may shape their psychological development.

The present study contributes to trauma research by examining psychotraumatic manifestations in a population exposed primarily to cumulative relational adversity. By focusing on adolescents living with HIV in the Republic of the Congo, it extends existing trauma theories to a context where vulnerability is shaped by the intersection of health conditions, family transformations, and social stigma. The study therefore seeks to bridge clinical psychology, developmental psychology, and transcultural approaches.

II. METHODOLOGY

This study employed a mixed quantitative and clinical design combining a cross-sectional assessment of psychotraumatic vulnerability with a pre-post evaluation of psychological changes following an EMDR-informed intervention. The quantitative component aimed to describe the prevalence of trauma-related manifestations, sociodemographic characteristics, caregiving conditions, and psychological indicators among adolescents living with HIV. The clinical component focused on the therapeutic process and changes observed following trauma-focused intervention. This design was selected because the research question required both an exploration of the distribution of psychological vulnerability and an understanding of individual clinical trajectories within a context of cumulative relational adversity.

The study was conducted at the Ambulatory Treatment Centre (Centre de Traitement Ambulatoire, CTA) of Brazzaville, Republic of the Congo. The CTA is a specialized healthcare facility providing medical monitoring, antiretroviral treatment, and psychosocial support for people living with HIV. The centre also provides psychological assistance for adolescents experiencing difficulties related to treatment adherence, disclosure, stigma, family relationships, and emotional adjustment.

The study included 74 adolescents living with HIV who were receiving follow-up care at the CTA of Brazzaville. Participants were recruited according to predefined eligibility criteria. Inclusion criteria were: confirmed HIV infection, age between 10 and 19 years, regular follow-up at the CTA, ability to participate in

psychological interviews, and informed consent from parents or legal guardians when required, with adolescent assent. Participants were excluded in cases of severe cognitive impairment, acute psychiatric decompensation, active psychotic symptoms, or medical instability preventing psychological assessment. The sample consisted of adolescents receiving routine HIV care. Therefore, the study used a clinical convenience sampling approach rather than population-based sampling.

Data were collected through structured interviews and review of clinical information. The variables examined included age, sex, educational level, HIV disclosure status, caregiving arrangement, reported psychosocial adversities, trauma-related manifestations, and psychological outcomes following intervention.

Caregiving arrangement was considered a central explanatory variable and was categorized into two groups: adolescents living with biological parents and adolescents living with non-parental caregivers, including grandparents, extended family members, or other guardians. This classification was selected because caregiving continuity and relational security represent important dimensions of adolescent psychological development.

Psychotraumatic manifestations were assessed through structured clinical interviews conducted by trained clinical psychologists involved in the psychosocial care program at the CTA. Because the study was conducted within routine clinical practice, no standardized trauma diagnostic instrument was used as the sole assessment tool. Instead, a clinically based operational framework was developed to identify trauma-related manifestations.

Participants were considered as presenting psychotraumatic manifestations when persistent difficulties were observed across emotional, cognitive, behavioural, and relational domains, including persistent emotional distress; feelings of insecurity, shame, or fear; avoidance behaviours; distressing memories or intrusive recollections; social withdrawal; low self-esteem associated with interpersonal experiences; and emotional dysregulation or hypervigilance.

This operational approach was informed by contemporary perspectives on developmental trauma, complex trauma, and attachment-based models, which emphasize that trauma-related suffering may emerge from cumulative relational adversity.

Self-esteem was evaluated using the Rosenberg Self-Esteem Scale (RSES), a ten-item instrument designed to measure global self-worth. Participants responded to statements describing positive and negative self-perceptions. Total scores were classified into five categories: very low, low, moderate, high, and very high self-esteem.

Depressive symptomatology was assessed using the Hamilton Depression Rating Scale (HDRS). The scale was used to document the presence and severity of emotional, cognitive, behavioural, and somatic symptoms, including insomnia, anxiety, irritability, psychomotor disturbances, suicidal ideation, and associated clinical manifestations.

Participants were classified according to whether they had been informed of their HIV status. Disclosure status was considered a relevant psychosocial variable because previous research has shown that the timing and conditions of disclosure may influence emotional adjustment, treatment adherence, family relationships, and psychological well-being among adolescents living with HIV.

Adolescents identified as presenting psychotraumatic manifestations received an EMDR-informed psychotherapeutic intervention delivered by trained clinical psychologists working within the psychosocial programme of the Ambulatory Treatment Centre.

The intervention followed the principles of the Adaptive Information Processing (AIP) model proposed by Shapiro while remaining adapted to the realities of routine HIV care. Depending on individual clinical needs, treatment generally consisted of four to eight sessions lasting approximately sixty minutes each. The therapeutic process included clinical history taking, case conceptualization, preparation and stabilization, identification of distressing experiences related to HIV, stigma, family disruption, discrimination, rejection, or emotional neglect, bilateral stimulation procedures, installation of adaptive cognitions, body scan, closure, and reevaluation.

Because the intervention was integrated into routine clinical practice, treatment plans were individualized according to each adolescent's psychological presentation rather than standardized within an experimental protocol.

Following completion of the intervention, participants underwent a second psychological assessment using the same clinical procedures and standardized instruments. The principal outcomes included changes in trauma-related manifestations, depressive symptoms, self-esteem, and overall psychological functioning. Comparisons between baseline and post-intervention assessments were intended to describe clinical evolution rather than to establish causal treatment effects.

Data were entered, verified, and analysed using descriptive and inferential statistical procedures. Categorical variables are presented as frequencies and percentages, whereas continuous variables are summarized using appropriate descriptive statistics. Associations between caregiving arrangements and psychotraumatic manifestations were examined using contingency tables and odds ratios (OR). Where appropriate, 95% confidence intervals were calculated to estimate the strength of associations. Given the

observational nature of the study and the relatively limited sample size, statistical analyses were primarily exploratory. Consequently, the findings should be interpreted as evidence of association rather than proof of causality.

Finally, ethical requirements have been taken into account. The study complied with the ethical principles outlined in the Declaration of Helsinki for research involving human participants. Ethical approval was granted by the Faculty of Letters, Arts and Human Sciences (FLASH), Université Marien Ngouabi, in collaboration with the Ambulatory Treatment Centre (CTA) of Brazzaville (Authorization No. 067). Written informed consent was obtained from parents or legal guardians, while informed assent was obtained from all participating adolescents. Participation was entirely voluntary, confidentiality was strictly respected, and psychological support remained available throughout the study for participants requiring additional clinical care.

III. RESULTS

Sociodemographic and Clinical Characteristics of Participants

The study included 74 adolescents living with HIV who were receiving follow-up care at the Ambulatory Treatment Centre of Brazzaville. Participants represented different stages of adolescence, although the majority were between 15 and 17 years of age. Female participants were slightly more numerous than males. Most adolescents were enrolled in secondary education, reflecting the age structure of the study population.

Regarding HIV disclosure, nearly three-quarters of the participants had already been informed of their serological status. An important characteristic of the sample was the predominance of non-parental caregiving arrangements. More than three-quarters of the adolescents were living with grandparents, extended family members, or other guardians rather than with their biological parents. This distribution highlights the importance of family reorganization within the context of HIV and provides the basis for examining its relationship with psychological vulnerability. Detailed sociodemographic characteristics are presented in Table 1.

Table 1. Sociodemographic and clinical characteristics (N=74)

Variable	n	%
Age 10–14	20	27.0
Age 15–17	38	51.3
Age 18–19	16	21.6
Female	44	59.5
Male	30	40.5
Primary education	13	17.5
Secondary education	57	77.0
University	4	5.4
HIV disclosure	54	72.8
No disclosure	20	27.2
Biological parents	18	24.3
Non-parental caregivers	56	75.7

Source: CRF, Ambulatory Treatment Centre (CTA), Brazzaville, 2021.

Prevalence of Psychotraumatic Manifestations

Among the 74 adolescents included in the study, 54 (72.8%) were identified as presenting psychotraumatic manifestations according to the clinical assessment framework adopted for this research. This high prevalence indicates that trauma-related psychological difficulties were common within the study population.

A marked difference emerged according to caregiving arrangements. Only a small proportion of adolescents living with their biological parents presented psychotraumatic manifestations, whereas the overwhelming majority of those living with non-parental caregivers exhibited trauma-related difficulties. These findings suggest that caregiving context may represent an important factor associated with psychological vulnerability among adolescents living with HIV. The detailed distribution is presented in Table 2.

Table 2. Caregiving arrangement and psychotraumatic manifestations

Caregiving	Yes	No	Total	% Yes
Biological parents	3	15	18	16.7
Non-parental caregivers	51	5	56	91.1

Source: CRF, Ambulatory Treatment Centre (CTA), Brazzaville, 2021.

Association Between Caregiving Arrangement and Psychotraumatic Vulnerability

Statistical analysis revealed a strong association between caregiving arrangement and psychotraumatic vulnerability. Adolescents living with non-parental caregivers were substantially more likely to present trauma-related psychological difficulties than those living with their biological parents.

The crude odds ratio indicated a markedly increased likelihood of psychotraumatic manifestations among adolescents raised by non-parental caregivers. Although this estimate should be interpreted cautiously because of the relatively small sample size and the absence of multivariable adjustment, the magnitude of the association suggests that caregiving environment constitutes an important psychosocial correlate of trauma-related suffering.

These findings support the hypothesis that cumulative relational adversity, particularly when associated with disruptions in caregiving relationships, may contribute to increased psychological vulnerability among adolescents living with HIV.

Psychosocial Experiences Reported by Participants

Clinical interviews revealed that participants had experienced multiple forms of psychosocial adversity. Stigmatization was the most frequently reported experience, followed by maltreatment or neglect and discrimination. Smaller proportions of adolescents reported social exclusion and interpersonal isolation.

Rather than occurring as isolated events, these adversities were generally described as repeated experiences extending over prolonged periods. Their cumulative nature is consistent with the theoretical framework developed in the present study, which emphasizes the potential psychological impact of chronic relational adversity. The frequency of the different psychosocial experiences is summarized in Table 3.

Table 3. Psychosocial experiences (n=54)

Experience	n	%
Stigmatization	22	40.7
Maltreatment/neglect	12	22.2
Discrimination	12	22.2
Social exclusion	4	7.4
Isolation	4	7.4

Source: CRF, Ambulatory Treatment Centre (CTA), Brazzaville, 2021.

Baseline Psychological Profile

The baseline psychological assessment revealed substantial emotional vulnerability among adolescents presenting psychotraumatic manifestations. Self-esteem scores indicated that nearly two-thirds of the participants were classified within the low or very low self-esteem categories, whereas only a minority demonstrated high levels of self-esteem. These findings suggest that negative self-perception constituted a central component of the psychological difficulties experienced by the participants.

Assessment with the Hamilton Depression Rating Scale also identified a broad spectrum of psychological symptoms. Hyperactivity and irritability were the most frequently observed manifestations, followed by somatic complaints, insomnia, anxiety, suicidal ideation, depersonalization, and occasional psychotic-like symptoms. Although symptom severity varied among participants, the overall pattern reflected significant psychological distress consistent with prolonged exposure to adverse relational experiences. The detailed distribution is presented in Table 4.

Table 4. Baseline psychological profile (n=54)

Measure	n	%
Very low self-esteem	18	33.3
Low self-esteem	16	29.6
Moderate self-esteem	11	20.3
High self-esteem	8	14.8
Very high self-esteem	0	0.0
Hyperactivity	14	25.9
Irritability	11	20.3
Somatic complaints	10	18.5
Insomnia	5	9.2
Anxiety	4	7.4
Suicidal ideation	4	7.4
Depersonalization	3	5.5
Delusional symptoms	3	5.5

Source: CRF, Ambulatory Treatment Centre (CTA), Brazzaville, 2021.

Psychological Changes Following the EMDR-Informed Intervention

Among the 54 adolescents who received the EMDR-informed intervention, 44 (81.5%) no longer presented clinically significant psychotraumatic manifestations at the post-intervention assessment, whereas 10 participants continued to exhibit residual psychological difficulties.

Marked improvements were also observed in emotional functioning. Most participants no longer presented clinically significant depressive symptoms according to the Hamilton Depression Rating Scale. In parallel, self-esteem improved across the cohort. No participant remained within the very low self-esteem category after the intervention, while the proportions of adolescents classified as having moderate, high, and very high self-esteem increased substantially.

These observations indicate a favourable pattern of psychological evolution following the intervention. Nevertheless, because the study was conducted within an observational clinical framework without a comparison group, these improvements should be interpreted as post-intervention clinical changes rather than definitive evidence of treatment efficacy. The post-intervention psychological outcomes are summarized in Table 5.

Table 5. Psychological outcomes following EMDR (n=54; post-treatment n=44)

Outcome	n	%
Clinical remission	44	81.5
Persistent symptoms	10	18.5
No depressive symptoms (post)	36	81.8
Residual depressive symptoms	8	18.2
Low self-esteem	7	17.0
Moderate self-esteem	11	25.0
High self-esteem	15	34.1
Very high self-esteem	13	29.2
Very low self-esteem	0	0.0

Source: CRF, Ambulatory Treatment Centre (CTA), Brazzaville, 2021.

Summary of the Main Findings

Three principal findings emerged from this study. First, psychotraumatic manifestations were highly prevalent among adolescents living with HIV receiving care at the Ambulatory Treatment Centre in Brazzaville, suggesting that trauma-related psychological suffering represents an important but often under-recognized dimension of HIV care.

Second, caregiving arrangements appeared to be strongly associated with psychological vulnerability. Adolescents living with non-parental caregivers presented markedly higher frequencies of psychotraumatic manifestations than those living with their biological parents, supporting the importance of relational and family environments in adolescent mental health.

Third, participants who received the EMDR-informed intervention demonstrated substantial improvements in psychological functioning, including reductions in trauma-related manifestations and depressive symptoms together with significant improvements in self-esteem. Although causal conclusions cannot be drawn from the present observational design, these findings support the potential value of trauma-informed psychological care integrated within HIV services.

Overall, the results are consistent with the theoretical proposition that cumulative relational adversity may contribute to trauma-related suffering even in the absence of a single sudden traumatic event.

IV. DISCUSSION

Reconsidering Trauma Beyond the Classical Event-Based Model

The principal objective of this study was to examine whether psychotraumatic manifestations among adolescents living with HIV could be understood solely through the traditional event-based conception of trauma or whether cumulative relational adversity also contributes to psychological vulnerability. The findings support the second perspective. A large proportion of participants presented trauma-related manifestations despite the absence of a single catastrophic event corresponding to the classical definition of trauma. These observations do not contradict established diagnostic frameworks. The DSM-5-TR continues to provide an essential reference for identifying trauma-related disorders following exposure to life-threatening events. Likewise, the distinction proposed by Terr between Type I and Type II trauma remains relevant because it recognizes that repeated interpersonal adversity may produce patterns of psychological suffering that differ from those associated with isolated traumatic incidents (1,2).

Attachment Disruption and Caregiving Environment

One of the most important findings of this study concerns the strong association observed between caregiving arrangements and psychotraumatic manifestations. Adolescents living with non-parental caregivers were considerably more likely to present trauma-related psychological difficulties than those living with their biological parents. This association should not be interpreted as evidence that non-parental caregiving is inherently harmful. Across many African societies, grandparents and extended family members play an essential protective role when parents are unable to provide care because of illness, death, or socioeconomic hardship.

However, attachment theory suggests that repeated changes in caregiving relationships or prolonged emotional insecurity may influence psychological development independently of caregivers' intentions (6,7). The quality, stability, and emotional availability of caregiving relationships appear to be as important as the identity of the caregiver.

HIV, Stigma, and the Accumulation of Relational Adversity

The high frequency of stigma, discrimination, emotional neglect, and social exclusion observed in the present study confirms that HIV remains associated with substantial psychosocial challenges despite remarkable biomedical advances. Unlike acute traumatic events, these experiences generally occurred repeatedly within ordinary social environments, including families, schools, peer groups, and communities. Their psychological impact therefore appears to derive less from their intensity than from their persistence and cumulative nature. Consequently, trauma-related suffering in this population may be better understood as the outcome of prolonged relational adversity than as the direct consequence of a single traumatic incident.

Interpreting the Findings Through the Lens of Progressive Trauma

The concept of progressive trauma proposed in this study should be understood as an interpretative framework rather than as a new psychiatric diagnosis. Its purpose is to describe a process through which repeated experiences of stigma, emotional insecurity, caregiving disruption, discrimination, and social exclusion may progressively weaken psychological adaptation. This perspective is consistent with existing theories of Type II trauma, complex trauma, developmental trauma, attachment theory, and allostatic load. Rather than replacing these frameworks, it integrates them by emphasizing the cumulative and temporal dimensions of relational adversity.

Clinical Implications of the EMDR-Informed Intervention

The psychological improvements observed following the EMDR-informed intervention suggest that trauma-focused psychotherapy may represent a valuable component of comprehensive HIV care for adolescents. Nevertheless, because the study employed an observational pre-post design without a control group or randomization, the improvements cannot be attributed exclusively to the EMDR-informed intervention. Therapeutic alliance, spontaneous recovery, routine psychosocial support, family changes, or other contextual factors may also have contributed to the observed outcomes. Future controlled studies will be required to determine the specific contribution of EMDR to psychological recovery among adolescents living with HIV.

Implications for Clinical Practice and Public Health

The findings have several implications for mental health practice and public health policy. First, psychological assessment in adolescent HIV care should extend beyond the identification of discrete traumatic events and include systematic exploration of chronic relational adversity, caregiving experiences, stigma, and social exclusion. Second, multidisciplinary HIV programmes should incorporate trauma-informed and attachment-sensitive approaches. Third, caregivers should be supported through psychoeducational and psychosocial programmes that strengthen secure relationships and promote emotionally responsive caregiving. Finally, collaboration between clinical psychology, psychiatry, social work, education, and community health services may enhance integrated models of care.

Study Limitations and Future Research

The study was conducted at a single clinical centre and included a relatively small convenience sample, which limits the generalizability of the findings. Trauma-related manifestations were identified through structured clinical assessment rather than through a standardized diagnostic instrument specifically designed for developmental trauma. In addition, the absence of a control group and the observational design prevent causal conclusions regarding the effectiveness of the EMDR-informed intervention. Future studies should include multicentre samples, standardized trauma assessment instruments, longitudinal follow-up, and controlled intervention designs. Comparative studies involving different African cultural contexts would also contribute to understanding how relational adversity influences psychological development among adolescents living with HIV.

V. CONCLUSION

This study provides evidence that psychotraumatic manifestations are highly prevalent among adolescents living with HIV receiving care in Brazzaville and that these manifestations are closely associated with cumulative relational adversity, particularly caregiving instability, stigma, discrimination, and social exclusion. The findings support contemporary perspectives emphasizing that trauma-related psychological suffering may develop progressively through repeated adverse relational experiences rather than exclusively

through sudden and catastrophic events. Within this context, the concept of progressive trauma is proposed as an interpretative framework for understanding forms of psychological vulnerability that remain insufficiently explained by traditional event-based models. Although additional research is required to confirm these observations, the study highlights the importance of integrating trauma-informed, developmentally sensitive, and culturally appropriate psychological care into HIV services for adolescents in sub-Saharan Africa. By combining clinical evidence with theoretical reflection, the present research contributes to ongoing discussions regarding the evolving understanding of trauma and its relevance within diverse social and cultural contexts.

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