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Research Article

Social Stigma, Social Isolation and Adverse Childhood Experience as Factors of Depression Among Adolescents Living with Hiv

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Abstract

HIV is still a major public health challenge and according to Global AIDS monitoring (2020), Nigeria ranked fourth in the world with regards to HIV burden. Nigeria has a generalized HIV epidemic with the highest HIV burden in West and Central African sub-region. The present study investigated whether social stigma, social isolation and adverse childhood experience will be associated with depression among adolescent living with HIV. Three hundred (300) females 129 and males 171 drawn from Bishop Shanahan Hospital and Faith Foundation Hospital both in Nsukka, Enugu state with the age range of 13-19 and a mean of 18.10 and (S.D=2.91) participated in the study. It was hypothesized that social stigma, social isolation and adverse childhood experience will significantly be associated with depression among adolescents living with HIV. The Kutcher Adolescent Depression Scale (KADS); Berger HIV Stigma Scale (BHIVSS); Social Isolation Scale (SIS); Childhood Trauma Questionnaire Short Form (CTQ-SF) were used to collect the data. Hierarchical multiple linear regressions were used to analyze the data collected. Result of a hierarchical multiple linear regressions shown that social stigma, social isolation and adverse childhood experience did not predict depression among adolescents living with HIV. Implications, limitations and suggestion for further studies should make use of a larger population size and cover various hospitals and ethnic groups.

Keywords: social stigma; social isolation; adverse childhood experience; depression; adolescents living with hiv/aids

Introduction

HIV/AIDS is a serious global concern, having a devastating morbidity and mortality impact across the globe, with sub-Sahara Africa having the highest prevalence rates (W. H.O, 2018). Of the HIV infected persons, 90% live in developing countries and over 40% of those infected are women and about half of the newly infected persons belong to the age group of 15- 24 years (Kartikeyan et al., 2007). In 2020, about 1.75 million adolescents between the ages of 10 and 19 were living with HIV worldwide and adolescents account for about 5 percent of all people living with HIV and about 11% of new adult HIV infections (Manciuc et al., 2022). Globally, adolescents that represent the key population groups (including gay and bisexual boys, transgender adolescents, adolescents who sell sex, and adolescents who inject drugs) have an increased risk of contracting HIV infection (Manciuc et al., 2022). In 2016, Nigeria had 220, 000 (150,000-310,000) new HIV infections and 160,000 AIDS-related deaths (United Nations Programme on HIV/AIDS, 2016). Common Mental disorder (CMD) are leading cause of disability (Ezra et al., 2021) and are known to hasten HIV disease progression. Ezra, et al, (2021), studied the Prevalence and factors associated with common mental disorders in young people living with HIV in Sub-Saharan Africa. The study found that CMD and depression are highly prevalent in this high HIV prevalence population. Depression is nowadays a common chronic disease in most societies worldwide that can impair normal functioning, cause depressive thoughts, and adversely affect the quality of life (Liu et al., 2020). The Diagnostic and Statistical Manual of Mental Disorder (DSM-5) highlights the following as symptoms of depression: depressed mood on most days, including feelings of sadness and emptiness, loss of pleasure in previously enjoyed activities, too little or too much sleep most days, unintended weight gain or loss or changes in appetite, physical agitation or feelings of sluggishness, low energy or fatigue, feeling worthless or guilty, trouble concentrating or making decisions and intrusive thoughts of death or suicide (Villines, 2018). Depression is a major human blight, globally, it is responsible for more 'years lost' to disability than any other condition (Smith, 2014). When ranked by disability and death combined, depression comes ninth behind prolific killers such as heart disease, stroke and HIV, and yet depression is widely undiagnosed and untreated because of stigma, lack of effective therapies and inadequate mental-health resources (Smith, 2014). Chibanda et al., (2016) found that probable CMD and depression in PLWH are associated with recent negative life events such as perceived stigma, social distancing among PLWH. Investigated the role of neurocognitive and mental health outcomes and association with quality

of life among adults living with HIV in low-literacy population from coastal Kenya, Nyongesa et al., (2018) found that increasing depressive scores were significantly associated with poorer quality of life. Stigma was described by Goffman (1963) as an attribute that can be deeply discrediting, which reduces whole persons to tainted and discounted others. Herek (2009) defines stigma as the negative regard, inferior status, and relative powerlessness that society collectively accords to people who possess a particular characteristic or belong to a particular group or category. There are three levels of stigma such as individual, interpersonal and structural stigma. Individual stigma refers to the psychological processes in which individuals engage in responses to stigma, such as self-stigma. Interpersonal stigma refers to interactions that occur between the stigmatized and the non-stigmatized, and structural stigma which refers to a structural restriction of the opportunities of stigmatized groups, for instance by law, or institutional policies (Hatzenbuehler 2016). Social stigma was defined by Link and Phelan (2001) as the co-occurrence of several components [1]. distinguishing and labeling differences between people [2]. linking these differences to negative stereotypes, discrimination [3]. separating them from and [4]. Status loss and discrimination. HIV stigma refers to society's negative views and perceptions about people living with HIV. Lack of knowledge about HIV which led to fear of contracting HIV, negative social perceptions about HIV and PLHIV. Internalized stigma is the loss of a person's self-esteem or feeling of self-worth as a result of the individual's belief that he or she is socially unacceptable. The definition above explains the prejudice, stereotype and discrimination experienced by AHIV which causes psychological distress such as depression. Stereotypes, discrimination, and prejudice exist at the psychological level and are often the product of social stigma causing affecting the wellbeing of AHIV. Mugo et al., (2023) in their study found that stigma was associated with depressive symptoms. In the sudy by Nabunya, and Namuwonge, (2022), that examined the relationship between HIV-related shame, stigma and the mental health of adolescents (10–14 years) living with HIV in Uganda, it was found that HIV-related stigma was not associated with any form of mental health in adolescents. However, HIV-related stigma is a social process referring to shame, negative perceptions, and social isolation of PLWH (Azhar et al., 2022). Social isolation; is described as reduced social contact due to a loss of personal role in society, decreases in social network ties, barriers to access a decreased ability to engage in reciprocal social relationships and loneliness (Antonucci & Akiyama, 1987). Furthermore, social isolation has been defined as the lack of meaningful and sustained communication or as having minimal contact with either the family or the wider community (Victor, Scambler, Bond & Bowling, 2000). Victor, et al (2000), identified various approaches to measuring isolation which involve recording levels of social contact, enumerating social participation and quantifying social networks. The nature of a person's social network has been identified as key to the level of social isolation that they experience. Networks are described as identified social relationships that surround a person, their characteristics, and the individual's perceptions of them. Social networks can be identified by size (number of people in the net-work), density (the degree to which members of the network are interrelated) and the accessibility and reciprocity of the relationships. Social isolation in HIV patients has been linked to not only impaired physical and mental health but also mortality (Holt-Lunstad, Smith, & Layton, 2010). The link between social isolation and health might be due to objective deprivation of social network ties or subjective experience of social isolation. While objective social isolationhas been described as 'lack of contact with others due to situational factor, such as small size of social network, infrequent social interaction, or lack of participation in social activity', subjective social isolation has been characterized as perceived shortage in one's social resources, such as companionship or social support (Cornwell & Waite, 2009). The objective and subjective experience of social isolation was as a result of their HIV status. Ahmed et al., (2021) studied the role of social support, illicit drug use, and other predictors of anxiety and depression among HIV/AIDS patients in Pakistan and found that Low social support was more likely to develop depression and anxiety than those with good social support, which is as a result of how social isolation diminishes social care, adversely affecting emotional and physical well-being. ACEs include a range of early-life challenges and traumatic events that occur before age 18 and may put an individual at risk for negative experience throughout the life course, such experiences include emotional, physical, and sexual abuse, household dysfunction, and neglect (Satinsky, Kakuhikire, Baguma, Rasmussen, Ashaba, Cooper-Vince, & Tsai, 2021). ACEs is described as harms that affect children directly (eg, abuse and neglect) and indirectly through their living environments (eg, parental conflict, substance abuse, or mental illness). Ermisch, (2008) described ACEs to include exposure directly to child abuse (sexual, verbal and physical) and more broadly to family dysfunction including domestic violence, parental separation and household members with substance abuse, poor mental health or incarceration, increasing exposure to such childhood adversity has been associated with escalating risk of problems including substance use, violence, sexual risk-taking and suicide ideation. Additionally, Poor quality childhoods are often associated with societal level factors such as deprivation and inequities (Marmot, et al 2012), meanwhile there is increasing evidence that specific childhood experiences increase the risk of individuals adopting health-harming behaviours and developing chronic ill health in later life. Satinsky, et al (2021) examined adverse childhood experiences, adult depression, and suicidal ideation in rural Uganda. Regression models adjusted for self-reported HIV status, the cumulative number of ACEs was associated with greater depression symptom severity. Since there is a relationship between each variable with depression, we can predict that social stigma, social isolation and ACEs are associated with depression among adolescent with HIV. Attribution theory is a psychological framework that focuses on how individuals interpret and explain the causes of events or behaviors. When it comes to social stigma among adolescents living with HIV, attribution theory can help us understand how individuals perceive and respond to stigmatizing experiences related to their HIV status. For instance, an adolescent living with HIV might attribute the stigmatizing behaviors of their peers to their own HIV status, perceiving it as something inherent in themselves that leads to negative treatment from others. Furthermore, attribution theory suggests that individual attributions influence their emotional and behavioral responses to stigmatizing events. In the context of social stigma among adolescents living with HIV, external attributions may involve attributing the stigma they experience to societal prejudices, lack of awareness or education about HIV, or fear and misinformation about the disease, these individuals may seek out social support, engage in advocacy efforts, or participate in educational initiatives to challenge HIV-related stigma. Attribution theory was originally proposed by psychologist Fritz Heider (1958) and has since been expanded upon by other researchers. It suggests that people are motivated to understand the causes of events and behaviors, and they make attributions to explain these causes. The Trauma Theory of Adverse Childhood Experiences (ACEs) suggests that the accumulation of ACEs can exacerbate the negative emotions

associated with HIV and contribute to a higher risk of adverse health outcomes and psychosocial difficulties among this population (Freud, 1955). Adolescents living with HIV often face unique challenges and stressors related to their health condition, including managing the physical demands of the disease, adhering to complex medication regimens, and navigating the social and emotional aspects of living with a stigmatized illness. In addition to the challenges, they may also experience a higher prevalence of ACEs compared to their peers without HIV. Ashaba, et al., (2019), studied the role of Community beliefs, HIV stigma, and depression among adolescents living with HIV in rural Uganda. They conducted 5 focus group discussions and 40 one-on-one in-depth interviews in Mbarara, Uganda with adolescents (aged 13–17 years) and adult women caregivers. All interviews were audio-recorded, transcribed directly into English, and coded using thematic analysis to identify themes related to psychosocial adversities and mental health. The result showed that harsh treatment from peers and adults often led to negative emotions among ALWH, including feelings of shame, embarrassment and emotional pain. The study suggested that interventions to correct community misperceptions about HIV can potentially reduce stigma and thereby improve physical and mental health outcomes of ALWH. Zeng, et al., (2018), conducted a structural equation model of perceived and internalized stigma, depression, and suicidal status among people living with HIV/AIDS. A total of 450 PLWH were recruited and 39 questionnaires were invalid as participants did not finish these questionnaires due to various reasons such as physical examination, outpatient appointment, resulting in 411 (91.3%, 411/450) PLWH in the current study. Perceived and internalized stigma (PIS) was measured by fourteen statements derived from HIV Stigma Scale while depressive symptoms were measured by the Chinese version of the Center for Epidemiologic Studies Depression Scale (CES-D). The findings suggested that PIS is associated with increased depression and the likelihood of suicidal status among PLWH. Ashaba, et al., (2019), studied the role of Community beliefs, social isolation, and depression among adolescents living with HIV in rural Uganda. They conducted 5 focus group discussions and 40 one-on-one in-depth interviews in Mbarara, Uganda with adolescents (aged 13–17 years) and adult women caregivers. All interviews were audio-recorded, transcribed directly into English, and coded using thematic analysis to identify themes related to psychosocial adversities and mental health. The result showed that found that ALWH were subjected to negative community misperceptions about their perceived aggression towards others and presumed early mortality which resulted to depression. The study suggested that interventions to correct community misperceptions about HIV can potentially reduce stigma and thereby improve physical and mental health outcomes of ALWH. Adeyemo, et al., (2020), determined the prevalence and correlates of depression and suicidality in adolescents living with HIV infection in Lagos Nigeria. A total of 201 adolescents attending HIV outpatient clinics in two tertiary hospital (Lagos state University Teaching Hospital and Nigerian Institute of Medical Research) were recruited. Adverse childhood experience was measured with the Adverse Childhood Experience Scale (ACE) and Depression and Suicidality were assessed using the specific modules of the Child version of the Mini International Neuropsychiatric Interview for Children and Adolescents (MINI-KID). The result showed that adverse childhood event has been identified as a risk factor for depression in adolescents with HIV infection.

Method Participant

The total number of participants in the present study were 300 (male=171, 57%; female=129, 43%) HIV patients drown from Bishop Shanahan Hospital Nsukka, and Faith Foundation Hospital Nsukka, both in Enugu State. The participants' age ranges from 13 to 19 years of age (mean= 18.10; SD=2.85). The researchers visited the two hospitals on Monday, Wednesday and Friday which were their clinical days. The participants voluntarily participated in the study by appending their signature. A Convenience sampling method was adopted. Some of the participants were single=299 (299%), and married=1(3%). The ethnic groups involve in the research includes Igbo=230(76.7%), Hause=20(6.7%), Yorubah=27(9.0%) and others=23(7.7%).Instrument Four instruments were used to collect the data and they include; A demographic data questionnaire was used to obtain information about the participant`s demography; The Kutcher Adolescent Depression Scale (KADS); Berger HIV Stigma Scale (BHIVSS); Social Isolation Scale (SIS); Childhood Trauma Questionnaire Short Form (CTQ-SF).Kutcher Adolescent Depression Scale (KADS): The Kutcher Adolescent Depression Scale (KADS), was developed by LeBlanc, Almudevar, Brooks, and Kutcher, (2002), designed specifically to diagnose and assess the symptoms of adolescent depression. The 13-item Kutcher Adolescent Depression Scale (KADS) is scored on a 3-point Likert-type scale, ranging from coded 0=hardly ever, 1=much of the time, 2=most of the time, 3=all of the time. Sample items on the scale include, "Low mood, sadness, feeling blah or down, depressed, just can't be bothered", "Feelings of worthlessness, hopelessness, letting people down, not being a good person", "Thoughts, plans, or actions about suicide or self -harm''. LeBlanc et al., (2002) reported a Cronbach's alpha of .82. The researchers carried out a pilot study to test the reliability of the scale. 100 (50, males and 50, females) participant from General Hospital Nsukka participated in the pilot study and reported a cronbach alpha of .81 from a pilot study conducted. Berger HIV Stigma Scale (BHIVSS): Berger HIV Stigma Scale (BHIVSS) was developed by Berger, Ferrans, and Lashley, (2001). The Berger HIV Stigma Scale (BHIVSS) is a 40-item, 4-point Likert-type scale (1=Strongly disagree, 2=disagree, 3=agree, 4=strongly agree) designed to measure the stigma perceived by people with HIV, two items are reverse-scored: items 8 and 21. Scoring involves calculating mean performance across the 40 items, with higher scores indicating greater social stigma with question number 9 reads "People with HIV are treated like outcasts" and question number 30 reads "Some told me HIV is what I deserve for how I lived". Berger, Ferrans, and Lashley, (2001), that reported Cronbach's alpha of .94 and a test retest of .92. The researchers carried out a pilot study to test the reliability of the scale. 100 (50, males and 50, females) participant from General Hospital Nsukka participated in the pilot study and reported a cronbach alpha of .93 from a pilot study conducted. Social Isolation Scale (SIS): Social isolation scale (SIS) is a 20-item scale developed by Russell, Peplau, and Ferguson, (1978) to measure loneliness among Americans. The Social isolation scale item 7 reads "There is no one I can turn to" and item 20 reads "People are around me but not with me". Item were scored on a 4-point likert scale of: 1=I often feel this way, 2=I sometimes feel this way, 3=I rarely feel this way, 4=I never feel this way. test-retest reliability of the 20-item Social Isolation Scale based on a sample of 102 University of Tulsa student volunteers assessed over a 2-month period, a test-retest correlation of .73 was found.It has also shown a good internal consistency .96 (Russell, Peplau, and Ferguson, 1978). The researchers carried out a pilot study to test the reliability of the scale. 100 (50, males and 50, females) participant from General Hospital Nsukka participated in the pilot study and reported a cronbach alpha of .82 from a pilot study conducted. The Childhood

Trauma Questionnaire Short Form (CTQ-SF): The Childhood Trauma Questionnaire Short Form (CTQ-SF) developed by Hagborg, Kalin, and Gerdner, (2022) is a self-report measure that childhood maltreatment in adults. The Childhood Trauma Questionnaire Short Form (CTQ-SF) is a 28 item scale with 5 point likert response format with rating scale (1=Never true, 2=Rarely True, 3=Sometimes true, 4=Often true, 5=Very often true). Hagborg, Kalin, and Gerdner, (2022) indicated that cronbach alpha of the total scale is .93. Lee, Chun, Kang and Lee (2004) reported a cronbach's alpha for the total scale as 0.89 also Winstead-Fry and Schultz (1997) reported a cronbach's alpha of the total scale as 0.89. The researchers carried out a pilot study to test the reliability of the scale. 100 (50, males and 50, females) participant from General Hospital Nsukka participated in the pilot study and reported a cronbach alpha of .74 from a pilot study conducted.

Procedure

Letter of identification was collected from the Department of Psychology, University of Nigeria, Nsukka, by the researcher and submitted to each hospitals (Bishop Shanahan Nsukka, Faith Foundation Nsukka) with an attached proposal to the Ethical Research Committee Bishop Shanahan Nsukka Hospital, and Faith Foundation Hospital for approval in order to allow the researchers administer the questionnaires to the participants. The patients were briefed on nature of the study and voluntarily agreed to participate in the study.

Through the help of the matrons, the researchers were given the permission to distribute the questionnaire to the patients. To affirm their full consent, their signature was appended and they willingly participated in the study. For the purpose of confidentiality, the participants were told not to pen down any personal information like name, address, phone no or anything that will reveal them. It took each participant15 minutes to complete the questionnaire. Three hundred and fouty questionnaires (340) were distributed, three hundred and twenty-five (325, 95.6%) were returned, fifteen (15, 4.4%) were invalid, and ten (10, 2.9%) were not fill correctly, and three hundred (300, 88.2%) were coded.

Design/Statistics

The study was primarily a survey, and cross-sectional design was adopted. The data obtained from participants was analyzed using the Statistical Package for Social Sciences (SPSS) version 25. A hierarchical multiple linear regression was used to analyze the data given that multiple regression can accurately estimate the relationship between predicting and criterion variables.

Results

Variables		Mean	*SD*	1	2	3	4	5	6	7
1	Age	18.10	2.86	-						
2	Gender	-	-	-.09	-					
3	Education	-	-	.63***	-.01	-				
4	Years of diagnosis	5.51	4.37	.03	-.15*	.05	-			
5	Social Isolation	58.80	16.24	.018	-.13*	.01	-.05	-		
6	Social Stigma	35.64	10.71	.03	-.13*	.03	-.04	.97***	-	
7	ACE	82.41	22.28	.02	-.13*	.01	-.07	.99***	.93***	-
8	Depression	26.12	3.52	.06	-.04	-.01	-.06	.02	.02	.02

Table 1: Pearson's correlations of demographic variables, social isolation, social stigma, and depression among adolescents living with HIV.

Note. ***p<.001; **p<.01; *p<.05; Gender (1 = Male, 2 = Female); ACE = Adverse childhood experience

Table 1 shows the means, standard deviations, and correlations among the study variables. Older age was positively associated with higher level of education (r = .63, p<.001). Being male was associated with higher years of diagnosis (r = -.15, p<.05), social isolation (r = -.13, p<.05), social stigma (r = -.13, p<.05), and adverse childhood experience (r = -.13, p<.001). Social isolation was positively related with social stigma (r = .97, p<.001) and adverse childhood experience (r = .99, p<.001). Social stigma was significantly correlated with adverse childhood experience (r = .93, p<.001). Adverse childhood experience was not significantly associated with depression among adolescents living with HIV (r = .06).

Predictors	Step 1			Step 2			Step 3		
	B	β	*T*	*B*	B	*t*	*B*	β	*T*
Social isolation	.00	.02	.30	.04	.18	.80	.04	.17	.27
Social stigma				-.06	-.17	-.75	-.06	-.17	-.59
ACE							.00	.01	.02
R^2	.0		0	.0		0	.0		0
R^2 Δ	.0		0	.0		0	.0		0
F	.09 (1, 298)			.33 (2, 297)			.22 (3, 296)		
F Δ	.09 (1, 298)			.56 (1, 297)			.00 (1, 296)		

Table 2: Hierarchical multiple regression predicting depression among adolescents living with HIV by social isolation, social stigma, and adverse childhood experience.

Note. ***p<.001; **p<.01; *p<.05; ACE = Adverse childhood experience

Results of the hierarchical multiple regression for the test of the hypotheses is shown in Table 2.

In Step 1, social isolation was not a significant predictor of depression among adolescents living with HIV, β= .02. The model was not significant, F (1, 298) = .09, R2 = .00. The R2 of .00 indicated that 0% of the variance depression among adolescents living with HIV was explained by social isolation.

In step 2, social stigma was not a significant predictor of depression among adolescents living with HIV, β= -.17. The model was not significant, FΔ (1, 297) = .56, R2Δ = .00. The R2Δof .00 indicated that 0% of variance in depression among adolescents living with HIV was explained by social stigma.

In step 3, adverse childhood experience was not a significant predictor of depression among adolescents living with HIV, β = .01. The model was not significant, FΔ (1, 296) = 00, R2Δ = .00. The R2Δ of .00 indicated that 0% of variance in depression among adolescents living with HIV was explained by adverse childhood experience. All the variable in the study explained 0% of the variance in depression among adolescents living with HIV.

Summary of Major Findings

1. Social isolation was not a significant association of depression among adolescents living with HIV.

2. Social stigma was not a significant association of depression among adolescents living with HIV.

3. Adverse childhood experience was not a significant association of depression among adolescents living with HIV.

Discussion

The findings of this study show social stigma did not significantly predict depression. This finding supports the study of Nabunya and Namuwonge, (2022) who found that stigma was not associated with depression. The findings indication of no association between social stigma and depression could be implicated in the fact that people who have been stigmatized may have other support factor such as emotion regulation that helps them to escape depression. The result was not in support with some studies that indicated a positive association between social stigma and depression (Mugo et al 2023; Murphy et al 2018), they found that stigma was associated with depression. This inconsistency could be related to cultural factor. The present study was carried out in the south east Nigeria and in only three different hospitals in the south east. It is therefore possible that the south east part of Nigeria doesn't allow for stigmatization among the HIV patients, which would not give room for depression. Further, the result however, showed that there was no association between social isolation and depression. This is not in support with the studies of Ahmed et al., (2021) and Cho, et al., (2019) who found a significant association between social isolation and depression. A possible reason why social isolation could not predict depression may be due to the fact that during adolescence, adolescents find it hard to isolate themselves from their fellow adolescent, who provides support, reduce prejudice and discrimination among those living with HIV. It gives them sense of belonging and feeling of being loved among their pairs. Another possible reason might be because of religion affirmative. The participants consist of mostly Christians. Christians often preach about love and stand against isolating from brethren. The support system from the Christendom more than enough to reduce depression among adolescent living with HIV.

Furthermore, ACEs did not significantly predict depression. This finding also did not support the studies of Maisano, et al., (2022) and Amone-p'olak & Letswai, (2020) who found a positive association between ACEs and depression. A possible reason for this result could be due to the sample size. The participants where just three hundred adolescents drawn from the south east part of Nigeria. Most studies on ACEs and depression have a higher sample size of three hundred participants. Another possible reason could be that adolescents from south east do not view ACEs to be a factor for depression.

Implications of the Findings

The results of this study illustrate social stigma, social isolation and ACEs as factors of depression among adolescent living with HIV and may be useful to families, mental health practitioners, policy makers and school authorities. Understanding this relationship is important because it provides more insight into reasons why a person may or may not be depressed due to negative societal factors associated with living with HIV. This therefore calls for families, societies to provide the basic emotional and physical support that would curb depression among adolescents living with HIV.

Finally, because depression in HIV has been predominantly studied among adult population, this study offers an insight into an adolescent population that is often overlooked. as such, government, school authorities and families at large could put preventive measures in place to ensure that adolescenst do not grow with the societal stigmatization, societal isolation and ACEs. The major limitation of this work is that it concentrated on only adolescents in Nsukka town and only[2] hospitals which cannot be used to make generalization in the whole Nsukka town. Future studies could more hospitals and wider populations beyond Nsukka town to cover more adolescents in the south east Nigeria. collaborate with scholars from the Western countries such as North America and Europe as a step toward substantiating the idea of the global spread of the phenomenon of Brain Fag Syndrome.

Suggestions for Further Studies

The inability of social stigma, social isolation and ACEs to predict depression among adolescent living with HIV is counter intuitive as one would believe that the presence of aforementioned factors would lead to increased depression and not vice versa. Therefore, future research could be fine to explore and explain this association. Also, this study should be replicated using experimental or longitudinal methods to allow for establishment of causal relationships. Future studies should consider using more representative samples that cut across different occupations and experiences.

Conclusion

The present study examined social stigma, social isolation and aces as factors of depression among adolescent living with HIV in Nsukka town to the best of the researcher's knowledge, no previous study had considered such a study especially among Nigeria sample.

Reference

1. Audet, C. M., McGowan, C. C., Wallston, K. A., & Kipp, A. M. (2013). Relationship between HIV stigma and self-isolation among people living with HIV in Tennessee. *PloS one*; 8(8); e69564.
2. Ayano, G., Demelash, S., Abraha, M., & Tsegay, L. (2021). The prevalence of depression among adolescent with HIV/AIDS: a systematic review and meta-analysis. *AIDS Research and Therapy*; 18(1); 1-10.doi: 10.1186/s12981-021-00351-1.
3. Azhar, S., Jokhakar, V., Vaudrey, J., Gandham, S., Oruganti, G., & Yeldandi, V. (2023). Associations between HIV stigma, gender, and depression among people living with HIV in Hyderabad, India. *Journal of Community Psychology*;51(3);1060 1077.https://doi.org/10.1002/jcop.22934
4. Bandura, A. (1999). Social cognitive theory: An agentic perspective. Asian Journal of Social psychology; 2(1); 21-41. https://doi.org/10.1111/1467-839X.00024
5. Bandura, A., & Walters, R. H. (1977). Social learning theory (Vol. 1). Prentice Hall: Englewood cliffs.
6. Bellis, M. A., Hughes, K., Leckenby, N., Hardcastle, K. A., Perkins, C., & Lowey, H. (2015). Measuring mortality and the burden of adult disease associated with adverse childhood experiences in England: a national survey. *Journal of Public Health*;37(3);445-454.https://doi.org/10.1093/pubmed/fdu065
7. Berger, B. E., Ferrans, C. E., Lashley, F. R. (2001). Measuring Stigma in People with HIV: Psychometric Assessment of the HIV Stigma Scale. *Research in Nursing & Health*; 24; 518-529. https://doi.org/10.1002/nur.10011
8. Carmen, M., Sapaniuc, C., Alexandra, L., & Alexandra, L. G. (2022). The HIV Positive Adolescent in a Pandemic Year: *A Point of View*.
9. https://link.springer.com/article/10.1186/s12888-016-0764-2
10. Chippindale, S., & French, L. (2001). HIV counselling and the psychosocial management of patients with HIV or AIDS. *Bmj*;322(7301);1533-1535. https://doi.org/10.1136/bmj.322.7301.1533
11. Courtois, C. A., & Ford, J. D. (2012). Treatment of complex trauma: A sequenced, relationship-based approach. *Guilford Press*.
12. Cui, R. (2015). A systematic review of depression. *Curr Neuropharmacol*;13(4); 480.https://doi.org/10.2174%2F1570159X1304150831123535
13. Ellis RJ, Iudicello J, Sun-Suslow N, Grelotti D, Cherner M, Morgan E, Letendre SL, Heaton RK. (2021). Social Isolation Is Linked to Inflammation in Aging People With HIV and Uninfected Individuals. *Journal of Acquired Immune Deficiency Syndrom*;15;86(5);600-606. doi: 10.1097/QAI.0000000000002596. PMID: 33298794; PMCID: PMC7933098.
14. Ermisch, J. (2008). Origins of social immobility and inequality: parenting and early child development. *National Institute Economic Review*;205;62-71.https://doi.org/10.1177/0027950108096589
15. Greenacre, P. E. (1953). Affective disorders; psychoanalytic contributions to their study. *International Universities Press*.
16. Hagborg, J. M., Kalin, T., & Gerdner, A. (2022). The Childhood Trauma Questionnaire—Short Form (CTQ-SF) used with adolescents–methodological report from clinical and community samples. Journal of Child & Adolescent Trauma;15(4);1199-1213. https://doi.org/10.1007/s40653-022-00443-8
17. https://link.springer.com/chapter/10.1007/978-3-658-21742-6_59
18. Hatzenbuehler, M. L. (2016). Structural stigma: Research evidence and implications for psychological science. *American Psychologist*;71(8);742–751. https://doi.org/10.1037/amp0000068
19. https://journals.sagepub.com/doi/abs/10.1177/088626050831647 7
20. Hosek, S. G., Harper, G. W., & Domanico, R. (2000). Psychological and social difficulties of adolescents living with HIV: A qualitative analysis. *Journal of Sex Education and Therapy*; 25(4); 269-276.https://doi.org/10.1080/01614576.2000.11074360
21. Kontomanolis, E. N., Michalopoulos, S., Gkasdaris, G., & Fasoulakis, Z. (2017). The social stigma of HIV–AIDS: society's role. *HIV/AIDS-Research and Palliative Care*; 111-118.https://doi.org/10.2147/HIV.S129992
22. LeBlanc, J. C., Almudevar, A., Brooks, S. J., & Kutcher, S. (2002). Screening for adolescent depression: comparison of the Kutcher Adolescent Depression Scale with the Beck Depression Inventory. *Journal of Child and Adolescent Psychopharmacology*;12(2);113-126.https://doi.org/10.1089/104454602760219153
23. Lee, M. B., & Rotheram-Borus, M. J. (2001). Parents' disclosure of HIV to their children. *AIDS*; 15(14); 1819-1827.
24. https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Link+BG%2C+Phelan+JC.+Conceptualizing+Stigma.+Ann+Rev+Sociol.+%282001%29.+https%3A%2F%2Fdoi.org%2F10.1146%2Fannurev.soc.27.1.363.Return+to+ref+13+in+article&btnG=
25. Liu, Q., He, H., Yang, J., Feng, X., Zhao, F., & Lyu, J. (2020). Changes in the global burden of depression from 1990 to 2017: Findings from the Global Burden of Disease study. *Journal of Psychiatric Research*; 126; 134-140.https://doi.org/10.1016/j.jpsychires.2019.08.002
26. Marmot, M., Allen, J., Bell, R., Bloomer, E., & Goldblatt, P. (2012). WHO European review of social determinants of health and the health divide. *The Lancet*; 380(9846); 1011-1029.https://doi.org/10.1016/S0140-6736(12)61228-8
27. Mausbach, B. T., Semple, S. J., Strathdee, S. A., Zians, J., & Patterson, T. L. (2007). Efficacy of a behavioral intervention for increasing safer sex behaviors in HIV-positive MSM methamphetamine users: results from the EDGE study. *Drug and Alcohol Dependence*; 87(2-3); 249-257.https://doi.org/10.1016/j.drugalcdep.2006.08.026.
28. Mellins, C. A., Brackis-Cott, E., Dolezal, C., & Abrams, E. J. (2005). The role of psychosocial and family factors in adherence to antiretroviral treatment in human immunodeficiency virus-infected children. *The Pediatric Infectious Disease Journal*; 24(6); 483-491.https://doi: 10.1097/01.inf.0000143646.15240.ac.
29. https://journals.lww.com/pidj/fulltext/2004/11000/the_role_of_psychosocial_and_family_factors_in.12.aspx
30. https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=National+Agency+for+the+Control+of+AIDS+%28NACA%29+%282020%29.+Global+AIDS+Monitoring+2020+Country+P

rogress+Report+.+Abuja+Nigeria%3A+National+Agency+for+the+Control+of+AIDS+%28NACA%29+and+UNAIDS.+Retrieved+from+https%3A%2F%2Fwww.unaids.org%2Fen%2Fdataanalysis%2Fknowyourresponse%2F++&btnG=

31. National Institute of Mental Health. February (2018). https://www.nimh.nih.gov/health/topics/depression/index.shtml
32. Nyblade, L., Stangl, A., Weiss, E., & Ashburn, K. (2009). Combating HIV stigma in health care settings: what works?. *Journal of the International AIDS Society*;12;1-7.https://doi.org/10.1186/1758-2652-12-15
33. Nyongesa, M. K., Mwangala, P. N., Mwangi, P., Kombe, M., Newton, C. R., & Abubakar, A. A. (2018). Neurocognitive and mental health outcomes and association with quality of life among adults living with HIV: a cross-sectional focus on a low-literacy population from coastal Kenya. *BMJ open*; 8(9); e023914.
34. Russell, D., Peplau, L. A., & Ferguson, M. L. (1978). Developing a measure of loneliness. *Journal of Personality Assessment*; 42(3); 290-294.https://doi.org/10.1207/s15327752jpa4203_11
35. https://www.tandfonline.com/doi/abs/10.2989/JCAMH.2008.20.2.5.688
36. Satinsky, E. N., Kakuhikire, B., Baguma, C., Rasmussen, J. D., Ashaba, S., Cooper-Vince, C. E., ... & Tsai, A. C. (2021). Adverse childhood experiences, adult depression, and suicidal ideation in rural Uganda: A cross-sectional, population-based study. *PLoS Medicine*; 18(5); e1003642.https://doi.org/10.1371/journal.pmed.1003642
37. https://link.springer.com/article/10.1007/s10461-010-9836-3
38. Tajfel, H., Turner, J. C., Austin, W. G., & Worchel, S. (1979). An integrative theory of intergroup conflict. *Organizational identity: A reader;* 56(65); 9780203505984-16.
39. Too, E. K., Abubakar, A., Nasambu, C., Koot, H. M., Cuijpers, P., Newton, C. R., & Nyongesa, M. K. (2021). Prevalence and factors associated with common mental disorders in young people living with HIV in sub-Saharan Africa: a systematic review. *Journal of the International AIDS Society*; 24; e25705.
40. United Nations Programme on HIV and AIDS (UNAIDS) (2016). *Global AIDS Update*. Availableat:http://www.unaids.org/sites/default/files/media_asset/globalAIDSupdate2016
41. https://www.cambridge.org/core/journals/reviews-in-clinical-gerontology/article/being-alone-in-later-life-loneliness-social-isolation-and-living-alone/5B070D099EC989DF39F6114F071E9EDC
42. https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Villines%2C+Z.+%282018%29.+Symptoms+of+depression+according+to+the+DSM-5.+Healthline.+https%3A%2F%2Fwww.healthline.com%2Fhealth%2Fdepression&btnG=
43. World Health Organization. (2014). *HIV/AIDS prevalence in Sub-Saharan Africa data by sex and residence*.

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