Adverse Childhood Experiences and Self-Reported Sexually Transmitted Infections among Adolescents and Young Adults in Zimbabwe

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Abstract

Sexually transmitted infections (STIs) are a public health crisis that can be devastating to individuals with adverse childhood experiences (ACEs). This study examined the prevalence and association between ACEs and self-reported STIs among adolescents and young adults in Zimbabwe. Data for this study was derived from the 2017 Zimbabwe Violence Against Children Survey (ZVACS) from the participants aged 13 to 24 (n=504). The self-reported prevalence estimates of STIs were calculated using weighted frequencies and percentages. Two logistic regression models were employed to assess an association between eight ACE types and self-reported STIs. The findings revealed that STIs were higher among orphans (52.2%), followed by participants with a history of lifetime suicide ideation or attempts (49.8%), were exposed to any ACE (42.5%), and had moderate/severe mental distress in the past 30 days (44.8%). Additionally, self-reported STI rates were higher for participants who experienced any form of physical violence (30.8%), witnessed physical violence (22.4%), experienced sexual violence (16.1%) and emotional violence (11.7%). In unadjusted regression models, all ACEs, except participants who experienced emotional violence, were significantly associated with self-reported STIs. However, after adjusting for covariates in the model, none of the ACEs maintained a significant association with self-reported STIs. Despite this, it is evident that interventions remain crucial for effectively preventing STIs for individuals with ACEs. There is a pressing need to implement and expand STI prevention programs nationally, including identifying and addressing ACEs and early screening, diagnosis, and treatment of STIs among adolescents and young adults in Zimbabwe.

Keywords: *Adverse childhood experiences (ACEs), Adolescents, sexually transmitted infections (STIs), Violence, Young adults, Zimbabwe.*

Introduction

Sexually transmitted infections (STIs) are the major public health concerns that can lead to serious health complications and sequelae, including infertility [1-4]. Globally, in 2015, the World Health Organization (WHO) indicated that more than 340 million new cases of STIs were reported among young people under the age of 25 [5]. Most recently, in 2019, STIs reported cases that surpassed one million which young individuals contracted on the daily basis. Some of the STIs tend to be asymptomatic and poses a greater risk of transmission to sexual partners [6]. In Low-and-middle-income countries (LMIC), it has been reported that young people face a higher risk of STIs due to limited knowledge about the damaging impact of STIs and limited preventive practices when engaging in sexual activities with their partners. Sub-Saharan Africa (SSA) ranks first in STIs yearly incidences compared to other regions of the world [7]. Zimbabwe is one of the SSA countries with widespread epidemics of major STIs, including HIV affecting a large number of young individuals [8, 9]. The early onset of sexual activities and inconsistent condom use may be attributed to the heightened vulnerability

of young people to contracting STIs in Zimbabwe [8, 9].

Adverse childhood experiences (ACEs) may have long-term negative consequences contributing to increased risk of STIs for adolescents and young adults in developing countries [10]. ACEs refers to events during early life that can be traumatic and result in long-lasting negative impacts on the health of the affected young individuals later in life [11, 12]. ACEs are defined by their distinct forms of abuse, such as experiencing emotional, physical, and sexual abuse, neglect, peer violence or bullying, witnessing intimate partner violence (IPV), community violence, being an orphan, living with a family member struggling with alcohol, drug addiction, or mental illness, parental separation, and household dysfunctions prior to 18 years old [13-16]. Recently, fewer studies have found that young people with ACEs may encounter chronic health conditions such as STIs and may encounter a possibility of an early death without interventions [17, 18]. However, other studies have failed to establish the effects of direct or indirect exposure between ACEs and the ultimate risk of STIs [19-22].

Several studies have also shown that exposure to specific forms of ACEs, including sexual, physical, and emotional violence, and witnessing violence at home increases the risk of STIs such as gonorrhea, and HIV infections [18, 23-25]. A cross-sectional study indicated that childhood sexual abuse increased the risk for any STIs and more than one type of STI, and physical abuse increased the risk for more than one type of STI [26].

Other numerous studies described self-reports of child abuse and history of STIs for adolescents [27, 28]. Additionally, children who experienced maltreatment during their childhood may face a higher likelihood of contracting STIs later in life. The risk of being diagnosed with STIs further increases when a person was sexually abused during childhood. As such, maltreatment of any kind can have a negative effects that puts the victims at increased risky sexual behavior for victims of sexual abuse and earlier initiation into sexual activities, which in turn, may be associated with careless indulgence in unsafe sexual intercourse, which can lead to increased risk of exposure to STIs [22, 26, 29, 30]. Past studies have shown a connection between STIs and poor mental health outcomes, and vice-versa, this phenomenon is often called a "syndemic approach." This implies that individuals with mental health conditions are more susceptible to acquiring STIs, and individuals diagnosed with STIs are more inclined to experiencing mental health issues [31-34].

Suicide is one of the pervasive forms that is linked to ACEs, which is considered to be the third leading cause of death for young individuals around the world [35], and one person in the world commits suicide every 40 seconds [36]. ACEs have been linked with markers of diminished life opportunities such as decreased income, education, employment, and suicide risk [37]. STIs are the major contributing risk factors which is behind the syndemic effect of suicidal ideations and attempts [38, 39]. Individuals with STIs may also experience difficulties with maintaining stability leading to mental health problems and increased risk of suicide contemplations or attempts [36-40]. On the other hand, prior studies have shown that being an orphan increases the likelihood of STI transmission for young people [41-44]. Although several studies above have highlighted that individual ACEs increases the risk of STIs among adolescents and young adults, there is still lack of studies using nationally representative samples examining an association between ACEs and self-reported STIs, particularly for adolescents and young adults in Zimbabwe. Therefore, this study aims to fulfill gaps in existing knowledge by examining the prevalence and association between exposure to individual ACEs and self-reported STIs among adolescents and young adults between 13 to 24 years old in Zimbabwe.

Methods

Study Design

This study utilized data from the 2017 Zimbabwe Violence Against Children Survey (ZVACS), a nationally representative cross-sectional household survey of adolescents and young adults (13 to 24 years old). The survey utilized a three stage, cluster-randomized design. In the first stage of selection, 1000 females EAs and 118 male EAs were randomly selected out of 29,365 EAs with a probability proportional to the size of the EAs in terms of household present. In the second stage of selection, the survey data collection teams conducted a mapping and listing of all structures and households in each of the selected EAs. In stage three of the selection, one eligible participant (male or female, depending on the EAs) was randomly selected by a computer program built using CSPro from the list of all eligible participants ages 13 to 24 in each household and the selected participants were then interviewed. To calculate separate male and female prevalence estimates for having experienced violence, this study used a split sample approach.

This means that each EA was assigned as a location to survey either females or males. The split-sample approach, consistent with World Health Organization (WHO) guidelines, served to protect the confidentiality of the participants and eliminated the chance that a perpetrator of sexual violence and a victim of the opposite sex in the same community would both be interviewed at the same time. In the male sample, 3445 were surveyed in 118 randomly selected EAs.

A total of 803 males completed individual questionnaire. In the female sample, 29, 635 households in 1,000 EAs were surveyed. In the final sample only adolescents and young adults who reported having been diagnosed with STIs were included. Therefore, the final sample was reduced to 504 adolescents and young adults in Zimbabwe.

Measures

Dependent Variable

Sexually transmitted infections (STIs). Self-reported STIs was assessed by asking the respondents: "Have you ever been diagnosed with a sexually transmitted infection?" This was dichotomously coded as 0=no or 1=yes.

Independent Variables

Adverse childhood experiences (ACEs) which occurred during childhood were identified as follows: experiencing any physical violence (PV), emotional violence (EV), any sexual violence (SV), witnessing any physical violence (WPV), witnessing any community violence (WCV), orphanhood, mental distress in the past 30 days and lifetime suicide risk. These specific ACEs were chosen based on previous studies utilizing VACS [14, 45, 46]. The items used in the VACS were derived from validated scales which included ISPCAN Child Abuse Screening Tool Retrospective, which assessed experiencing physical and sexual violence from any perpetrators [47], and the Juvenile Victimization Questionnaire, which assessed witnessing physical emotional violence and witnessing community violence [48, 49].

Emotional violence (EV) was assessed by asking the respondents whether they were told as a child by the caregiver that (1) the responded was not loved or did not deserve to be loved, (2) they wished respondent had never been born or were dead, (3) respondent was ridiculed or put down, e.g., say that he/she was useless or stupid before the age of 18 for young adults or during childhood for adolescents. The response options included "never," "once," "a few times," "many times," and "don't know/declined." This variable was recoded and dichotomized as follows: 0 = no *(never experienced EV)* and 1 = yes *(once, a few times, or many times; experienced EV).*

Physical Violence (PV) was assessed by asking the respondents whether they had experienced physical violence inflicted by any

perpetrator during childhood: (1) being punched, kicked, whipped, or beaten with an object, (2) being choked, smothered, subjected to drowning attempts, or intentionally burned, and (3) facing the use or threat of a knife or other weapons. The responses were recoded for each type of perpetrator, including (1) intimate partners, (2) peers, (3) parents, adult caregivers, or other adult relatives, and (4) adults in the neighborhood. The response options were "yes," "no," and "don't know/declined." Physical violence was categorized as follows: 0 = no (never experienced physical violence) or 1 = yes (experienced any form of physical violence).

Sexual violence (SV) was assessed by asking the respondents whether they had experienced sexual violence during childhood: (1) were offered food, favors, or gifts in exchange for engaging in sexual acts, (2) being involved in a sex video, photo or coerced to display their sexual body parts on webcam, (3) experiencing unwanted sexual touching, such as fondling, pinching, grabbing, or touching their sexual body parts, (4) facing unsuccessful attempts of forced sexual intercourse against their will, (5) being physically forced to engage in sexual acts, and(6) being coerced into sexual acts through harassment, threats, or manipulation. The response options provided were "yes," "no," and "don't know/declined." The responses were subsequently dichotomously coded as follows: 0 = no (no exposure to sexual violence) and 1 = yes (exposed to sexual violence).

Witnessed physical violence (WPV) was assessed by asking the respondents whether they had ever heard or seen a parent being punched, kicked, beaten up by the other parent, or their boyfriend or girlfriend during childhood. The response categories were: "never", "once", "a few times", "many times", and "don't know/declined." The responses were subsequently dichotomously coded as follows: 0=no (never witnessed physical violence), 1= yes (once, a few times, or many times; witnessed physical violence).

Witnessed community violence (WCV) was assessed by asking the respondents whether they had seen someone get attacked outside of his/her home or family environment during childhood. The response categories were "never", "once", "a few times", "many times", and "don't know/declined." The variable was subsequently dichotomously coded as 0=no (never witnessed community violence), and 1=yes (once, a few times, or many times; witnessed community violence).

Mental distress was assessed using the Kessler-6 (k-6) non-specific psychological scale (Kessler et al., 2002; Prochaska et al., 2012), which consists of six items asking respondents about symptoms associated with depression and/or anxiety in the past 30 days, how often they feel: (1) nervous, (2) hopeless, (3) restless, (4) so sad that nothing could cheer you up, (5) that everything was effortless, and (6) feel worthless about everything. Each specific question response included a 5-point Likert-type scale ranging from 0= none of the time to 4= all the time, with a possible score ranging from 0 to 24. The sum of these six items were used to calculate an overall mental distress score. Based on the reliability and valid scale and clinically proven cut-off points of Kessler-6 in measuring psychological distress in various contexts, including low-income countries, particularly in Sub-Saharan Africa, demonstrated moderate psychometric properties [50, 51]. In the absence of a pre-established cut-off score, I used the cut-off score based on the previous studies [14, 52, 53]. Respondents with scores of 0 to 4 were categorized as "0= no mental distress" and respondents with scores of 5 to 24 were categorized as "1= moderate or severe mental distress".

Suicide risk behaviors was assessed by asking the respondents whether they had experienced the following during their lifetime: (1) have you ever had thoughts of killing yourself? (2) have you made any attempts to end your life? and (3) have you intentionally harmed yourself at any point? The available response

options were "yes," "no," and "don't know/declined." The responses to these three items were combined to calculate an overall score. Respondents who answered "yes" to any of the items were categorized as having "*suicidal ideations or attempts*" (coded as 1), and those who responded "no" were categorized as having "*no suicide risk*" (coded as 0) based on the distribution of the data.

Orphanhood was assessed by asking whether the respondents lost one or both parents prior to 18 years old. This was dichotomously coded as 0= non-orphan, or 1=orphan.

Covariates

The covariates included sociodemographic characteristics such as sex, age, education level, and marital status. These were used as confounding variables in the adjusted model during data analysis.

Statistical Data Analysis

Descriptive characteristics of the participants were obtained by calculating the weighted frequencies and percentages since all variables were categorical in nature. Two multiple logistic regression models (unadjusted and adjusted) were performed to assess the significant associations between independent variables (individual ACE types) and the dependent variable (self-reported STIs). In unadjusted logistic regression model, each independent and dependent variable were entered to predict the significant relationship. While in an adjusted regression model, sociodemographic characteristics including sex, age, education level, and marital status were used as control variables. A significance level of 0.05 was adopted for both the bivariate and multivariate

analyses, and the statistical data analyses were performed using SPSS version 29.0.

Ethical Considerations

This study utilized secondary data that was exempted for ethical clearance from Lewis University. The survey protocol and informed consent documents were reviewed and approved by the U.S. Centers for Disease Control and Prevention (CDC) and the Zimbabwe Ministry of Health and Childcare [54].

Results

The Lifetime Prevalence of Self-Reported STIs

Table 1 presents the results of the self-reported prevalence of STIs. In total, 504 participants reported that they were diagnosed with STIs. In the overall sample, the prevalence of self-reported STIs was 55% for males, 74% for young adults (18 to 24 years), 54% for participants who were never married, 49.4% for participants with secondary education or higher, and 87.7% for participants who were close to their biological parents. Regarding ACEs, the prevalence of self-reported STIs was 42.5% for the participants who experienced any violence during childhood, 30.8% for experiencing any physical violence, 22.4% for witnessing any physical violence, 16.1% for experiencing any sexual violence and 11.7% for experiencing any emotional violence. Additionally, the prevalence of self-reported STIs was 44.8% for participants with moderate to severe mental distress in the past 30 days, and 49.8% for the participants who reported having ever had suicidal ideations or attempted suicide, and 52.2% for participants who reported that they were orphaned during childhood.

Table 1. Lifetime Prevalence of Self-Reported STI Among Participants (n=504)

Sociodemographic Characteristics	n	Weighted %
Sex		
Male	277	55.0
Female	226	44.8
Missing	1	0.2

Age group (years)		
13-17	131	26.0
18-24	373	74.0
Marital status		
Never married	272	54.0
Married	232	46.0
Education		
Primary or less than primary	109	21.6
Secondary or higher	249	49.4
Missing	146	29.0
Close to biological parents		
Not close or no relationship	51	10.1
Close or very close	442	87.7
Missing	11	2.2
ACE Experienced, Lifetime	**n**	**Weighted %**
Any ACEs experienced		
No	290	57.5
Yes	214	42.5
Childhood any physical violence (PV)		
No	349	69.2
Yes	155	30.8
Childhood any emotional violence (EV)		
No	17	3.4
Yes	59	11.7
Missing	428	84.9
Childhood any sexual violence (SV)		
No	423	83.9
Yes	81	16.1
Witnessed any physical violence (WPV)		
No	155	30.8
Yes	113	22.4
Missing	236	46.8
Mental distress, past 30 days		
No mental distress	277	55.0
Moderate/Severe mental distress	226	44.8
Missing	1	0.2
Suicide risk, lifetime		
No suicide risk	253	50.2
Suicidal ideations or attempts	251	49.8
Orphanhood		
Orphaned	263	52.2
Non-orphans	211	41.9
Missing	30	6.0

Association Between Socio-demographics Characteristics and Self-Reported STIs

As shown in Table 2, gender was not significantly associated with self-reported STIs. After adjustment of the model, females were more likely to report STIs compared to their male counterparts (OR=2.48, 95% CI=1.03--5.99). Young adults (18-24 years old) were more likely to report STIs compared to adolescents (13- 17 years old) in both unadjusted and adjusted models (OR=2.29 [95% CI=1.87--2.80], AOR=3.75 [95% CI=1.06--13.29]). In the unadjusted model, participants who were married had a higher likelihood of reporting STIs compared to unmarried (OR=1.88 [95% CI=1.57--2.26), but this association was not significant after covariate adjustment in the model. Additionally, participants who were close to their biological parents were less likely to report STIs compared to those who were not close to their parents (OR=0.53[95% CI=0.39--0.71), but this association was not significant in the adjusted model. In both the unadjusted and adjusted models, education was not significantly associated with self-reported STIs among the participants in the sample.

Association between ACEs and Self-Reported STIs

Table 2 also presents the results of an association between ACEs and self-reported STIs. The results indicated that ACEs were significantly associated with self-reported STIs in the unadjusted logistic regression models. Notably, participants who experienced any physical violence were more likely to report STIs compared to those who did not (OR=1.80[95% CI=1.48-2.19], AOR=1.53[95% CI=0.67-3.52). Participants who experienced any sexual violence had the highest odds of reporting STIs compared to those who did not (OR=2.53[95% CI=1.97-3.26], AOR=2.01[95% CI=0.82-4.91). Participants who witnessed any physical violence had a higher likelihood of reporting STIs compared to those who did not (OR=1.97[95% CI=1.53-2.53). Participants who were exposed to any form of ACEs were more likely to report STIs compared to those who did not (OR=1.90 [95% CI=1.58--2.28). However, experiencing emotional violence was not significantly associated with reporting STIs. On the other hand, participants who had moderate or severe mental distress in the past 30 days were more likely to report STIs compared to those without mental distress (OR=2.16 [95% CI=1.80--2.59). Additionally, participants who reported lifetime suicidal ideations or attempts were more likely to report STIs compared to those without suicide risk. Participants who reported being orphaned had higher odds of reporting STIs compared to non-orphans (OR=2.24 [95% CI=1.87--2.68). Overall, all the ACE types were not significantly associated with self-reporting STIs after covariate adjustments in the model.

Table 2. Association Between ACEs and Self-Reported STIs (n=504)

Variables	Self-reported STIs	
Demographic Characteristics	**OR (95% CI)**	**AOR (95% CI)**
Sex (ref=male)	1.19 (0.99—1.42)	2.48 (1.03—5.99)*
Age group -19 -24 years (ref=13-17yrs)	2.29 (1.87—2.80***)	3.75 (1.06—13.29)*
Currently married (ref= never married)	1.88 (1.57—2.26)***	1.23 (0.48—3.16)
Completed secondary or higher education (ref=primary or less)	0.87 (0.69—1.10)	0.51 (0.21—1.23)
Close to biological parent (ref = not close to biological parents)	0.53 (0.39—0.71)***	0.60 (0.21—1.72)
Individual ACE Types	**OR (95% CI)**	**AOR (95% CI)**
Experienced any PV (ref=No)	1.80 (1.48—2.19)***	1.53 (0.67-3.52)
Experienced any EV (ref=No)	1.13 (0.64—1.98)	0.78 (0.30—2.07)

Experienced any SV (ref=No)	2.53 (1.97—3.26)***	2.01 (0.82—4.91)
Experienced any ACEs (ref=No)	1.90 (1.58—2.28)***	--- ----
Witnessed any PV (ref=No)	1.97 (1.53—2.53)***	0.58 (0.25—1.36)
Moderate/Severe Mental distress (ref= no mental distress)	2.16 (1.80—2.59)***	0.51 (0.14—1.89)
Suicidal ideations/attempts (ref= no suicide risk)	2.24 (1.87—2.68)***	3.31 (0.73—14.92)
Orphaned (ref=non-orphans)	1.31 (1.09—1.58)***	1.35 (0.57—3.21)

Note: *p<.05, **p<.01, ***p<.001, "-- --" = removed from the model due to multicollinearity; Covariates: Sex, age marital status, highest education level, and close to biological parents

Discussion

The primary purpose of this study was to determine the prevalence of STIs, as well as examine an association between ACE types and self-reported STIs among adolescents and young adults in Zimbabwe. ACEs are well-established risk factors with profound health implications or consequences, including STIs, irrespective of gender differences, education, marital status, or socioeconomic status [18].

The study found that adolescents and young adults who had experienced specific ACEs reported higher rates of sexually transmitted infections (STIs). Notably, the prevalence of STIs varied depending on the type of ACEs these individuals had been exposed to. Among those surveyed, STIs were reported by 52.2% of orphaned individuals, 49.8% of those who had experienced suicidal thoughts or attempted suicide, 44.8% of those who reported moderate or severe mental distress in the past 30 days, 42.5% of those who had experienced any form of ACE, 30.8% of those who had experienced physical violence, 16.1% of those who had experienced sexual violence, and 11.7% of those who had experienced emotional violence. Nonetheless, it is crucial to recognize that the prevalence estimates in this study may not accurately represent the true extent of STIs, given their reliance on self-reported data, which could be subjected to bias.

Additionally, the stigma associated with reporting STIs constitutes another significant limitation to consider. Prior studies have shown that many young people might not consider STI symptoms as serious, potentially due to a lack of awareness regarding the severe health consequences. This could contribute to the underreporting of STI symptoms among young people, especially adolescents and young adults. Moreover, the lack of familiarity with STI symptoms might exacerbate this underreporting [55, 56]. In the present study, males reported higher odds of STIs compared to females, with STI rates higher in males (55%) compared to females (44.8%) in unadjusted regression model. These findings are consistent with previous research indicating that young males often report higher rates of STIs due to their active involvement in sexual relationships, having multiple sexual partners, and engagement in transactional sexual activities and one-night stands [45, 57, 58]. The Centers for Disease Control and Prevention (CDC) reported that STIs affect individuals of all ages but significantly impact adolescents and young adults. Specifically, the CDC estimates that young people aged 15 to 24 account for nearly half of the 26 million new STI cases [59].

Similarly, this study found that 74% of young adults (aged 18-24) reported STIs compared to 26% of adolescents (aged 13-17). In the adjusted regression model, young adults were more likely to report STIs than adolescents in Zimbabwe. This implies that many young people are at increasing risk, and might underestimate their risk of contracting STIs, potentially due to limited knowledge about the negative consequences of STIs and how they relate to sexual behaviors [60-62]. Despite this, some scholars have argued that STIs' prevalence decreases as individuals become older,

particularly contributed due to less engagement in risk-taking behaviors such as unprotected sex compared to young people in any context [63]. Consequently, interventions are urgently needed to promote awareness and education in schools, homes, and communities to ensure that young people engage in safer sexual practices, thus reducing the potential consequences of acquiring STIs in later life.

In the unadjusted regression models of this study, most ACEs, such as sexual and physical violence, witnessing physical violence, being orphaned, having suicidal thoughts or attempts, experiencing mental distress in the past 30 days, and encountering any ACE, were significantly associated with self-reported STIs, except for emotional violence. However, none of the ACEs in the adjusted regression model remained significantly associated with self-reported STIs among adolescents and young adults. These discrepancies may be attributed to underreporting STIs, potentially leading to underestimating the actual association between ACEs and STIs.

The true association between ACEs and STIs may be more substantial than presented in this study. Furthermore, this study suggests that ACEs may not necessarily be the most robust predictors of STIs for adolescents and young adults in Zimbabwe, contradicting previous research findings that linked ACEs, such as sexual, physical, or emotional violence, and witnessing violence at home, to an increased risk of adverse sexual health outcomes, including STIs such as gonorrhea and HIV infection [18, 23-25, 45, 64].

Therefore, further studies should focus on understanding the relationships between ACEs and confirmatory testing of STIs for adolescents and young adults rather than relying on self-reported measures.

Limitations of the Study

This present study has several limitations worth highlighting. The current study was cross-sectional, making it difficult to establish causal inferences due to the temporality of the association among variables. Discussing ACEs, specifically sexual and STIs, are highly emotional and sensitive subjects -limiting some participants not to disclose important information due to fear, embarrassment, stigma, and discrimination. STIs were not confirmatory tests but were self-reported by the participants. As such, future studies should focus on STI testing rather than self-reported measures to avoid biases in reporting the cases. In addition, the specific self-reported STIs were not categorically indicated in the survey. This made it difficult to assess which of the STIs were highly prevalent. Since VACS was conducted as part of the household survey, it was not possible to gather information from other participants outside of the family care. Therefore, this may not be generalizable to the whole population of adolescents and young adults in Zimbabwe. Regarding ACEs, the VACS questionnaires excluded some important ACE variables, such as those who lived with family members who were substance abusers or incarcerated or could have experienced bullying at school; therefore, ACE measures utilized in this study were not an exhaustive list.

Conclusion

In summary, this study has shown that STIs are highly prevalent for adolescents and young adults who have been exposed to ACEs in Zimbabwe. Conversely, ACEs were not significantly associated with self-reported STIs after adjusting for covariates in the model. Nevertheless, the pressing necessity for intervention remains unmistakable, given the elevated rates of STIs.

The early identification and mitigation of ACEs should be a top priority, necessitating nationwide preventive measures, including proactive early screening, diagnosis, and treatment programs tailored for affected adolescents and young adults in Zimbabwe.

Conflict of Interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article: The findings and conclusions in this report are those of the author(s) and do not necessarily represent the official position of the Centers for Disease Control and Prevention (CDC) who made this data publicly available.

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