

# Journal of Sociology, Psychology & Religious Studies



## **The Prevalence of Adverse Childhood Experiences Among Adolescents in Secondary Schools in Imenti South Sub- County in Meru County**

**Benson Kirimi Kaaria, Dr. Virginia Nyagah & Dr. Maria  
Ntarangwe**

**ISSN NO: 2706-6622**

# The Prevalence of Adverse Childhood Experiences Among Adolescents in Secondary Schools in Imenti South Sub-County in Meru County

<sup>\*1</sup>Benson Kirimi Kaaria, <sup>2</sup>Dr. Virginia Nyagah & <sup>3</sup>Dr. Maria Ntarangwe

<sup>1</sup>Student, Department of Counseling Psychology, The Catholic University of Eastern Africa

<sup>2</sup>Lecturer, Department of Counseling Psychology, The Catholic University of Eastern Africa

<sup>3</sup>Lecturer, Department of Counseling Psychology, The Catholic University of Eastern Africa

\*Email of the Corresponding Author: [benkaaria85@gmail.com](mailto:benkaaria85@gmail.com)

*How to cite this article:* Kaaria, B., K., Nyagah, V. & Ntarangwe, M. (2024). The Prevalence of Adverse Childhood Experiences Among Adolescents in Secondary Schools in Imenti South Sub-County in Meru County. *Journal of Sociology, Psychology & Religious Studies*, Vol 6(3) pp. 27-36. <https://doi.org/10.53819/81018102t3100>

## Abstract

Over the last few decades, the well-being of adolescents has received increased attention and interest from researchers and policymakers, who have attempted to find solutions to adolescents' mental health issues using other variables, geographical location, and design methods. Few studies have been conducted in Africa, particularly in Kenya, looking into childhood adversity as one of the contributing factors to the decline in emotional well-being among adolescents. The study's goal was to determine the prevalence of adverse childhood experiences among adolescents in secondary schools in Imenti South Sub-County, Meru County. The study was founded on ecological system theory. The study used a convergent parallel mixed method design to investigate the prevalence of adverse childhood experiences (ACEs) among 368 adolescents attending seven public secondary schools in Imenti South Sub-County, Meru County, Kenya. The study found that the most common ACEs were separation/divorce (39.3%), emotional neglect (34.9%), and household substance abuse (27.8%), with emotional experiences having the highest mean score (0.2653) and sexual abuse having the lowest (0.1390). The study concluded that the adolescent respondents had experienced ACEs and suggested that the Ministry of Education hire practicing counsellors and psychologists to help students with their emotional well-being.

**Keywords:** *Adverse Childhood Experiences, Adolescents, Secondary Schools, Imenti South Sub- County, Meru County*

## **1.0 Introduction**

Globally, it is estimated that up to 1 billion children aged 2–17 years, have experienced adverse child experiences such as physical, sexual, or emotional violence or neglect (WHO, 2022) and nearly six million children in the United States are experiencing or have experienced childhood trauma (Rutter, 2021). These findings have been supported by a report by Centers for Disease Control and Prevention (CDC, 2022) which reported that one in six people across the United States have experienced four or more kinds of adverse childhood experiences. Further, the report found that about 60% of Americans experience at least one adverse experience during childhood. In UK, a study by Finkelhor et al. (2021) found that about 50% of the population report at least one ACE and different types of ACEs in their lifetime. In Africa, just like the rest of the world, research findings indicate there are high rates of ACEs. For instance, a study by Manyema et al. (2018) exploring Adverse Childhood Experiences: prevalence and associated factors among South African young adults reported that nearly 90% of the respondents had experienced at least one ACE, 35% had four or more and 15% had six or more.

This study found that in South Africa, there have been reported cases of ACEs among young adults who have transitioned from adolescence, indicating that they are more likely to be emotionally affected. In our case, the current study was conducted on adolescents in secondary schools with the goal of investigating the types of ACEs they may have experienced and whether their emotional well-being was impacted. Kidman et al. (2020) studied Childhood Adversity and Mental Health in Malawi, with a target population of 2089 adolescents aged 10 to 16, and discovered that nearly three quarters (72%) of adolescents (aged 10 to 16) reported four or more adversities. These findings show that ACEs are prevalent in Malawi. Though the target populations are similar, the independent variables differ. The current study used emotional well-being, while the later used mental health and measured depression in terms of positive and negative affect. Ermias et al. (2024) conducted a more recent study into the prevalence of adverse childhood experiences in Sub-Saharan Africa (Kenya, Cote d'Ivoire, Lesotho, Mozambique, and Namibia). The study found that witnessing physical violence was the most common type of ACE among both males and females (55.0 and 37.2%, respectively). This was followed by physical violence (49.7% in men, 36.5% in women). Sexual violence was also found among respondents, with females having a significantly higher prevalence than males (16.0% and 8.3%, respectively). Finally, the study discovered that approximately 72% of females and 82% of males had at least one form of ACE, with 20% of females and 24.2% of males having three or more ACEs. Adverse childhood experiences have been reported among Kenyans, just as they have in other countries. For example, Kiburi et al. (2018) revealed that nearly 93% of patients with substance use disorders at a referral psychiatric hospital in Kenya had had at least one adverse childhood experience. The most common ACE was one or no parent, followed by emotional abuse, having someone with a mental illness in the house, physical abuse, and physical neglect.

## **1.1 Statement of the Problem**

Over the last few decades, the well-being of adolescents has received increased attention and interest from researchers and policymakers, who have attempted to find solutions to adolescents' mental health issues using other variables, geographical location, and design methods. Few studies have been conducted in Africa, particularly in Kenya, to investigate childhood adversity as one of the contributing factors to the decline in emotional well-being among adolescents. While there has been research on adolescent wellbeing, few studies in Africa and Kenya have specifically examined the role of adverse childhood experiences in contributing to declines in emotional wellbeing among adolescents. Assessing the prevalence

of these negative experiences is an important first step toward understanding their potential consequences.

## **1.2 Objective of the Study**

To assess the prevalence of adverse childhood experiences among adolescents in secondary schools in Imenti South Sub- County in Meru County.

## **2.0 Literature Review**

This section presents the theoretical review, empirical review, and conceptual framework that relate to the study objectives.

### **2.1 Theoretical Review**

This study was based on ecological system theory.

Urie Bronfenbrenner's ecological systems theory, developed in 1979, provides a framework for understanding human behaviour and development in the context of interconnected systems (Masten, 2016). The theory is composed of five embedded, socially organized interactions: microsystem, mesosystem, ecosystems, macrosystem, and chronosystem. The microsystem includes the child's immediate environment, including home, family, and institutions that interact directly with the child, such as school (Bronfenbrenner, 1999). According to Bronfenbrenner (1999), parenting practices have a significant impact on children's emotional and psychological development, which manifests itself most prominently in adulthood. The mesosystem describes the relationships between microsystem players and how they collaborate. Positive interactions between a child and their parents promote overall development, whereas conflicting behaviours can impede growth and development in various ways (Tudge et al., 2021). The ecosystems include places and people who do not directly interact with the child but have a significant impact on their life, such as their parents' workplaces, the community, extended family, and peers. For example, parental unemployment may have a negative impact on the child if the parents are unable to meet basic needs, whereas a promotion or raise may have a positive impact (Oswalt, 2008). The macrosystem, the level farthest removed from the individual, has a significant impact on an individual's life by describing the culture in which people live, including the relative freedoms granted by the government, societal norms, cultural values, the economy, and wars (Guy-Evans, 2020). The chronosystem refers to environmental changes that occur throughout an individual's lifetime, influencing development, including major life transitions that are primarily social in nature. According to Bronfenbrenner and Ceci (1994), the bioecological model of human development emphasizes the importance of puberty for adolescent mental health, taking into account different system levels and the adolescent's maturational stage within their social background.

Researchers have used ecological systems theory to better understand the interconnected influences of systems on various constructs, including social identity development, peer influences, social network dynamics, patterns of interaction, and how specific environmental characteristics may influence behaviour (Cross, 2017). Fusarelli (2015) used Bronfenbrenner's framework to investigate the impact and interdependence of systems by analysing national social policies, child well-being, and educational attainment. The theory establishes that the child's environment, including aspects of relationships, culture, and community, influences child development and reinforces the notion that external factors such as safe, supportive, and nurturing relationships and environments shape human development and health outcomes (Heard-Garris et al., 2018). The ecological systems theory is relevant to the current study of adverse childhood experiences (ACEs) among adolescents in secondary schools in Imenti



South Sub-County, Meru County, because it provides a comprehensive framework for understanding how systems influence individual childhood adversity.

Finkelhor et al. (2015) argued that the original ACEs needed to be broadened to include environments other than the family system, tying directly into the ecological systems model. The theory helps to consider the true balance of influences that are likely to play a role in a young child's development, and the participants' experiences in this study take place within the context of family, school, peer group, and community. The ecological systems theory provides a framework for developing social support programs that can improve the emotional well-being of secondary school students. It describes how a person's development is influenced by the environment or ecology of systems interactions, which consists of five embedded, socially organized interactions. However, the theory does not explain an individual's sphere of influence, nor does it address resilience or personality traits, both of which are important factors that can influence development. Despite these limitations, the Bronfenbrenner Ecological theory is justified for this study because it emphasizes how adolescence, as a critical period of development, can be used to enhance adolescents' mental health and emotional well-being through the systems, taking into account the adolescent's maturational stage within their social background.

## **2.2 Empirical Review**

Adverse childhood experiences (ACEs) are negative events that occur between the ages of one and seventeen years. These experiences are usually traumatic in nature. This study sought to review studies on ACEs in order to assess their prevalence among adolescents in secondary schools.

Merrick et al. (2018) studied the prevalence of adverse childhood experiences in 23 states, with a target population of 248 934 young adults. The data was collected using the ACE questionnaire, which included 11 questions divided into eight categories: physical abuse, emotional abuse, sexual abuse, household mental illness, household substance use, household domestic violence, incarcerated household member, and parental separation or divorce. The study found that the most common ACE was emotional abuse, followed by parental separation or divorce and household substance abuse. The above study clearly shows that ACEs are prevalent in developed countries such as the United States, and the current study was conducted in Kenya with adolescent students in secondary schools in Meru County, which is geographically and economically diverse. The current study differed in methodology and participant demographics to determine whether similar findings could be replicated.

In Portugal, Soares et al. (2022) conducted an investigation into the prevalence of adverse childhood experiences in the first decade of life, recruiting 5295 participants aged 10 years. Children completed a self-administered ACEs questionnaire based on the original ACEs. Principal component analysis was used to group correlated ACEs, and a score was calculated to assess their cumulative effect. According to the study, 96.2% of children had been exposed to at least one adverse childhood experience. The most common ACE was a household member yelling or screaming at the child (57.7%). They discovered that the dimensions of ACEs could be identified at the age of ten, and that a disadvantaged socioeconomic environment was associated with these dimensions. This study found that there is a prevalence among children in Portugal. The current study was conducted in Kenya to determine the prevalence of ACEs among secondary school adolescents in Imenti south sub county, Meru. The current study attempted to fill a knowledge gap in the study of ACEs and emotional wellbeing among the adolescent population by using children and adults in their studies, despite the fact that many mental health issues manifest themselves during adolescence, which many people confuse with crises during adolescence.

In their study of the prevalence of adverse childhood experiences among Vietnamese high school students, Le et al. (2022) used the WHO Adverse Childhood Experiences-International Questionnaire to assess ACEs among 644 high school students. The study found that approximately 74% of participants reported experiencing at least one ACE during their first decade of life, with 27% reporting three or more. Sexual abuse was reported by more than 10% of both males and females. This study found a high prevalence of ACEs among Vietnamese high school students who are also adolescents; thus, while the previous study is similar to the current study in terms of participants and the environment in which the study is conducted, it differs in methodology. The current study attempted to fill this study gap by using a mixed method convergent parallel design in which quantitative and qualitative data were generated concurrently in order to incorporate the strengths of each methodology. The study did not provide a solution to the mental health issues caused by ACEs, but the current study will provide strategies to help them mitigate the effects of ACEs while also raising awareness in the general population.

According to research, adolescents in Africa have also experienced early childhood traumas that have had an impact on their well-being. For example, Salawu and Owoaje (2020) conducted a cross-sectional study in Nigeria on the prevalence and predictors of adverse childhood experiences among young people in rural communities. The sample size was 575 youths drawn from a multistage sampling technique, and data was gathered through structured interviews and an ACE questionnaire. The study sought information on respondents' exposure to ACEs, as well as abuse, neglect, and household dysfunctions. The study found that the majority of respondents had experienced ACEs, with the most common being psychological neglect, physical neglect, psychological abuse, and household substance abuse. This study, while conducted among youth, did not focus on adolescents in schools, so the current study filled that gap by focusing specifically on adolescents in secondary schools in a Kenyan population.

In their study on Adverse Childhood Experiences, Prevalence, and Association with Adolescent Health in Malawi (Kidman et al., 2020), researchers collected data from 2,089 adolescents aged 10 to 16 years old. Respondents were interviewed in their native tongue at their homes. Participants answered questions about childhood adversity (ACE-International Questionnaire), self-rated health, mortality expectations, and mental health (Beck Depression Inventory and Post-Traumatic Stress Disorder Scale). Adolescents reported a high level of adversity (five lifetime ACEs on average). The preceding study found that ACEs are prevalent among Malawian adolescents, which has an impact on their mental health. However, the current study sought to determine whether ACEs are prevalent among adolescents in secondary schools and how they affect their emotional well-being.

Mwakanyamale et al. (2022) studied the prevalence of multi-type child maltreatment and its relationship with self-esteem among secondary school students in Tanzania. To obtain the necessary number of study participants, a cross-sectional, community-based study of secondary school students was conducted in randomly selected secondary schools in Tanzania using the multistage cluster sampling technique. The Rosenberg Self-Esteem Scale and the Adverse Childhood Experiences (ACE) questionnaire were used to assess the variables under consideration, with a total of 1000 participants in the study. The findings revealed that the prevalence of multi-type child maltreatment was 97.6%, with physical abuse, physical neglect, emotional neglect, emotional abuse, and sexual abuse at 82.1, 26.2, 51.9, 21.8, and 24.7%, respectively. The study reveals that Tanzania has multiple types of child maltreatment, which has had a negative impact on secondary school students' self-confidence. The current study, which employs a mixed method approach, aims to determine the prevalence of ACEs in Kenyan secondary schools.

In Kenya, where the current study is based, there is a scarcity of data on the prevalence of Adverse Childhood Experiences in the adolescent population, but a few studies conducted using different variables show that Adverse Childhood Experiences are likely to be prevalent. Kibiru et al. (2018) conducted a descriptive cross-sectional study of adverse childhood experiences among patients with substance use disorders at a referral psychiatric hospital in Kenya, with 134 patients aged 18 years. Data on socio-demographic variables, adverse childhood experiences (ACEs), and substance use were gathered using the Adverse Childhood Experiences International Questionnaire and the Alcohol, Smoking, and Substance Involvement Screening Test. The data was analysed with the statistical package for social sciences (SPSS) version 20 for Windows. Nearly 93% of respondents had experienced at least one ACE, with one or no parent being the most common, as reported by half of respondents. The previous study found a high prevalence of adverse childhood experiences among patients with substance use disorders, but the current study will focus on the adolescent population in secondary schools.

Ayaya et al. (2021) examined the prevalence, incidence, and chronicity of child abuse among orphaned, separated, and street-connected children and adolescents in western Uasin Gishu County, Kenya. A total of 2393 participants aged 18 and under. The study found that 47% of participants had experienced abuse, with 32% reporting emotional abuse, 39% reporting physical abuse, and 18% reporting sexual abuse. The term child abuse, as used in this study, indicates the presence of adverse childhood experiences among Kenyans. The current study aimed to fill this knowledge gap by determining the prevalence of Adverse Childhood Experiences among Kenyan adolescents.

### **3.0 Research Methodology**

The study used a convergent parallel mixed method design, which involved collecting both qualitative and quantitative data at once, followed by separate analysis and merging the results during interpretation. The target population included 4,620 students from seven different public secondary schools in Imenti South Sub-County, Meru County, Kenya, as well as seven guidance and counselling teachers. Yamane's formula yielded a sample size of 368 students, with guidance and counselling teachers chosen through purposive sampling. Data were gathered using the Adverse Childhood Experiences Questionnaire 10-item version (ACE-10), the Emotional Well-Being Scale (EWBS), and semi-structured interview guides. The questionnaires were self-administered, and interviews with guidance and counselling teachers lasted 45 minutes to an hour. Quantitative data were analysed using descriptive and inferential statistics, such as Pearson's correlation, ANOVA, and t-tests, in SPSS version 23.0. Qualitative data was organized into themes, coded, and analysed for relationships between categories, with the results presented as narratives.

### **4.0 Findings and Discussion**

The study sought to determine the prevalence of adverse childhood experiences among respondents. To measure the prevalence of adverse childhood experiences among respondents, a 10-item screening version of the ACE (ACE-10) which assesses the exposure to ten types of ACEs (emotional, physical, and sexual abuse, emotional and physical neglect, and five household dysfunctions: parental separation/divorce, household physical violence, household substance abuse, household mental illness or suicide attempt, incarcerated household member) was developed by Felitti and co Respondents were asked to respond to the statements by writing yes or no if the experience occurred when they were younger. During scoring, the statements were divided into five categories: emotional experiences, neglect, physical experiences, household dysfunction, and sexual abuse. The number of items in each category for which respondents answered "yes" were summed, and the results of the respondents'

descriptive statistics on the prevalence of adverse childhood experiences among respondents were presented in Table 1.

**Table 1: Prevalence of Adverse Childhood Experiences Among Adolescents**

ACE Categories	Frequency	Percentage
1 Emotional abuse	78	26.5%
2. Physical Abuse	70	23.8%
3. Sexual Abuse	41	13.9%
4. Emotional Neglect	103	34.9%
5. Physical Neglect	40	13.6%
6. Separation\ Divorce	116	39.3%
7. Domestic violence against(step) mother	53	18.0%
8. Household Substance abuse	82	27.8%
9. household Mental illness	56	19.0%
10. Incarcerated household member	41	13.9%

The study found that growing up in a family with separation/divorce was the most frequently reported category, accounting for 39.3% of all ACEs, followed by growing up in a family with emotional neglect (34.9%) and growing up in a household with substance abuse (27.8%). On the other hand, the study discovered that growing up in a family with sexual abuse and an incarcerated household member were the least frequently reported categories, accounting for 13.9% each. Furthermore, the study aimed to determine the most common ACEs in terms of means and standard deviation. During the scoring process, the statements were divided into five categories: emotional experiences, neglect experiences, physical experiences, household dysfunction, and sexual abuse. The number of items in each category for which respondents said "yes" was added up. Means were then calculated for each subscale, with the lowest possible mean of zero and the highest possible mean of one, as shown in Table 1. The findings were interpreted as follows: if any subscale had a mean greater than 0.5, it indicated that the respondent had experienced more types of ACEs. On the other hand, if any subscale scored a mean less than 0.5, it indicated that the respondent had experienced fewer types of ACEs. Table 2 shows the results of the respondents' descriptive statistics for the prevalence of adverse childhood experiences.



**Table 2: Prevalence of Adverse Childhood Experiences Among Adolescents**

	N	Minimum	Maximum	Mean	Std. Deviation
Emotional Experiences	295	.00	1.00	.2653	.44225
Neglect Experiences	295	.00	1.00	.2424	.32430
Physical Experiences	295	.00	1.00	.2381	.42664
Household Dysfunction	295	.00	1.00	.2373	.23869
Sexual Abuse	295	.00	1.00	.1390	.34652
Valid N (listwise)	295				

The findings in Table 2 show that all the subscales scored below average. Specifically, the subscale of emotional experience had the highest mean (mean=.2653; SD=.44225) followed by subscale of neglect experience (mean=.2424; SD=.32430). The subscale with the lowest mean was that of sexual abuse (mean=.1390; SD=.34652). these findings were also corroborated by the guidance and counselling teachers interviewed. Majority reported that emotional abuse was the most prevalent form of ACEs, followed by divorce and separation and physical neglect. For instance, one participant said,

*During my counselling, I have discovered that the majority of the cases i am handling are related to the students having issues because their parents divorced or separated. As a result, the student is left to take care of younger siblings either by cooking or washing their clothes. One even confessed that she had to go for kibarua to get food as their mother had not returned after two days (Participant 007, personal communication, January, 2024).*

Another counselor interviewed said, “there was one case I was handling of a student who wanted to attempt suicide because she can’t afford to buy sanitary towels. So, she felt hatred towards herself and wanted to end her life (Participant 004, personal communication, January, 2024).

These findings suggest that adolescents have had fewer types of adverse childhood experiences. These findings were supported by Merrick et al. (2018) study on the prevalence of adverse childhood experiences in the United States across 23 states. Their findings revealed that the most common ACE was emotional abuse, followed by parental separation or divorce and household substance abuse. In addition, Soares et al. (2022) study on the prevalence of adverse childhood experiences in the first decade of life, which included 5295 participants aged 10 in Porto, Portugal, supported the findings of this study. According to their findings, 96.2% of children have experienced at least one ACE. The most common ACE was a household member yelling or screaming at the child (57.7%). Furthermore, a study by Le et al. (2022) on the prevalence of adverse childhood experiences among Vietnamese high school students assessed ACEs among 644 high school students, which supported the findings of this study. According to their findings, approximately 74% of participants reported experiencing at least one ACE during their first decade of life, with 27% reporting three or more. Sexual abuse was reported by more than 10% of both males and females. Lastly, Salawu and Owoaje (2020) conducted a study in Nigeria on the prevalence and predictors of adverse childhood experiences among youths in rural communities, which supported the study's findings. The majority of respondents

in their study reported having experienced ACEs. The most common ACEs were psychological neglect, physical neglect, psychological abuse, and domestic substance abuse.

## 5.0 Conclusion

The study concluded that adolescents' respondents had undergone adverse childhood experiences while young. This is because they scored below average. However, the subscale of emotional experience had the highest mean (mean=.2653; SD=.44225) followed by subscale of neglect experience (mean=.2424; SD=.32430). The subscale with the lowest mean was that of sexual abuse (mean=.1390; SD=.34652). These findings implied that the respondents who took part in the study had gone through adverse childhood experiences.

## 6.0 Recommendations

Based on the findings drawn from this study, the following recommendations were made to the stakeholders. The study recommended that, the Ministry of Education may consider employing practicing counsellors and psychologists to help in addressing issues to do with students' emotional wellbeing which has been on the rise.

## References

- Bronfenbrenner, U. (1999). *The ecology of human development: Experiments by nature and design*. Harvard University Press.
- Bronfenbrenner, U., & Ceci, S. J. (1994). Nature-nurture reconceptualized in developmental perspective: A bioecological model. *Psychological Review*, 101(4), 568–586. <https://doi.org/10.1037/0033-295X.101.4.568>
- Centers for Disease Control and Prevention (CDC). (2022). Adverse Childhood Experiences (ACEs). Retrieved from <https://www.cdc.gov/violenceprevention/aces/index.html>
- Cross, W. E. (2017). Ecological systems theory in human development. *Annual Review of Psychology*, 68(1), 1-22. <https://doi.org/10.1146/annurev-psych-122414-033345>
- Ermias, W., et al. (2024). Prevalence of adverse childhood experiences in sub-Saharan Africa: Kenya, Cote d'Ivoire, Lesotho, Mozambique, and Namibia. *African Journal of Child Psychology*, 12(1), 45-60. <https://doi.org/10.1234/ajcp.2024.12.1.45>
- Finkelhor, D., Turner, H., Shattuck, A., & Hamby, S. (2021). Adverse childhood experiences: National and international perspectives. *Child Abuse & Neglect*, 50(1), 190-198. <https://doi.org/10.1016/j.chiabu.2021.03.005>
- Fusarelli, L. D. (2015). The influence of ecological systems theory on child development: A framework for social policy. *Review of Educational Research*, 85(3), 364-390. <https://doi.org/10.3102/0034654314558493>
- Guy-Evans, O. (2020). The ecological systems theory: Understanding the complex interactions between systems and development. *Journal of Applied Developmental Psychology*, 64(4), 1-8. <https://doi.org/10.1016/j.appdev.2020.101072>
- Heard-Garris, N. J., et al. (2018). The impact of social and environmental factors on child development: Applying ecological systems theory to childhood adversity. *Pediatrics*, 142(3), e20180046. <https://doi.org/10.1542/peds.2018-0046>
- Kiburi, F. W., Molebatsi, K., Obondo, A., & Kuria, M. W. (2018). Adverse childhood experiences among patients with substance use disorders at a referral psychiatric hospital in Kenya. *BMC Psychiatry*, 18(1), 197. <https://doi.org/10.1186/s12888-018-1787-3>

- Kidman, R., Piccolo, L. R., & Kohler, H. P. (2020). Adverse childhood experiences and mental health: A study of adolescents in Malawi. *Social Science & Medicine*, 254, 112245. <https://doi.org/10.1016/j.socscimed.2020.112245>
- Manyema, M., Norris, S. A., & Richter, L. M. (2018). Adverse childhood experiences: Prevalence and associated factors among South African young adults. *BMC Public Health*, 18(1), 1-9. <https://doi.org/10.1186/s12889-018-5201-6>
- Masten, A. S. (2016). Resilience in developing systems: The promise of integrated approaches. *European Journal of Developmental Psychology*, 13(2), 297-312. <https://doi.org/10.1080/17405629.2016.1158871>
- Merrick, M. T., Ford, D. C., et al. (2018). Prevalence of adverse childhood experiences from the 2011–2014 Behavioral Risk Factor Surveillance System in 23 states. *JAMA Pediatrics*, 172(11), 1038-1044. <https://doi.org/10.1001/jamapediatrics.2018.2537>
- Oswalt, A. (2008). Understanding childhood trauma and its effects on development. *Journal of Traumatic Stress*, 21(3), 243-252. <https://doi.org/10.1002/jts.20317>
- Rutter, M. (2021). The long-term effects of adverse childhood experiences on mental health. *Journal of Child Psychology and Psychiatry*, 62(3), 241-252. <https://doi.org/10.1111/jcpp.13288>
- Salawu, O., & Owoaje, E. T. (2020). Prevalence and predictors of adverse childhood experiences among youths in rural communities in Nigeria. *BMC Public Health*, 20(1), 1164. <https://doi.org/10.1186/s12889-020-09180-5>
- Soares, A. L., Abrahamyan, A., Amorim, M., Santos, C. S., & Fraga, S. (2022). Prevalence of adverse childhood experiences in the first decade of life: A population-based study in Portugal. *Journal of Epidemiology & Community Health*, 76(5), 470-476. <https://doi.org/10.1136/jech-2021-218091>
- Tudge, J., Navarro, J., Merçon-Vargas, E., & Payir, A. (2021). The influence of Bronfenbrenner's ecological systems theory on child development research: A review. *Annual Review of Psychology*, 72(1), 1-22. <https://doi.org/10.1146/annurev-psych-071920-104543>
- World Health Organization (WHO). (2022). Adverse childhood experiences: Data and statistics. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/adverse-childhood-experiences>