

Relationship Between Parental Dysfunctional-ity and Posttraumatic Stress Disorder Among Adolescents in Bungoma County, Kenya

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Abstract

This study therefore sought to examine the relationship between parental dysfunctionality and posttraumatic stress disorder (PTSD) among adolescents in Bungoma County Kenya. A total of 338 participants were recruited for the study comprising of 169 adolescents and their parents/guardians also numbering 169. The average age of respondents was male $16.8 \pm$ (SD:1.704) for the adolescents and $44.0 \pm$ (SD: 11.74) for the parents/guardians. The gender distribution of the participants was 72% females (N = 121) and 28% males (N = 48) among the adolescents; and 60% females (N=101) and 40% males (N=68) for the parents/guardians. Parental dysfunctionality was assessed in terms of parental Intimate Partner Violence (IPV), parental alcohol use and PTSD. Results from this study indicated that 63.3% of the parent respondents reported experiencing some form of IPV. The most prevalent form of IPV was psychological abuse at 56.8%, followed by emotional abuse at 34.9%, physical abuse at 32.5% and sexual violence at 21.3%. The prevalence of alcohol use disorder was at 4.8% and alcohol dependency was at 3.6%. The prevalence of parents' PTSD was at 73.4%, out of which 39.6% had high severity of PTSD and 33.7% had moderately high PTSD symptoms. Findings from this study also showed that prevalence of adolescents PTSD was 80.4% where 40.2% of the adolescents presented with high severity of PTSD and 40.2% with moderately high PTSD symptoms. Pearson correlation test was used to test the correlation between the two variables. The result showed a significant relationship between parental PTSD scores and presence of IPV ($r = .301, p < .002$). However, there was no significant correlation between the parental dysfunctionality markers and adolescent PTSD ($p > 0.05$). This showed that parental dysfunctionality does not relate to adolescent PTSD. This present study concluded that existence of IPV was associated with higher chances development of PTSD among parents/guardians however, parental dysfunctionality was not associated with higher scores of adolescents' PTSD.

Keyword: causal relationship, parental dysfunctionality, and posttraumatic stress disorder (PTSD) and adolescents, intimate partner violence and parental alcohol use.

Introduction and Background

Posttraumatic stress disorder (PTSD) has been argued to be associated with problematic parenting and incidents of trauma in the adolescents of affected parents. Studies on PTSD have found that parents of adolescents exposed to traumatic events are as equally likely as the child or adolescent, to develop PTSD impacting the adolescent's recovery (Wise & Delahanty, 2017; Gutermann, et al., 2016).

A family can be said to be dysfunctional when healthy functioning is interfered with. All families have stressful times and crises, such as death of a loved one when functioning is impaired. However, the expectation is that a healthy family will return to normalcy when the crisis is navigated. However, a family that is dysfunctional tends to have lingering problems and children and adolescents may not get their needs appropriately met, more so, their emotional needs. Negative emotions and behaviors may dominate the parents in these families (Walsh, 2015).

Parental dysfunctionality may also arise when parents have mental disorders and are impaired in raising their adolescents effectively (Tutus & Goldbeck, 2016). Parents who are struggling with psychological problems may not have the energy to give their children the much-needed attention while parents that have unhealthy behavior and thought patterns will most arguably be contributors to their adolescent's mental problems (Schleider *et al.*, 2015). The researchers further state that parents who abuse drugs may end up being abusive to their spouses and have trauma-related problems making it challenging for them to bring up mentally healthy adolescents (Schleider *et al.*, 2015). The current study examined parental dysfunctionality as a correlate to adolescent Post-Traumatic Stress Disorder. The specific areas in parental dysfunctionality that this study focused on were parental Alcohol Use Disorder, Intimate Partner Violence, and parental post-traumatic stress disorder.

It is estimated that the global adolescent population aged 10 to 19 years stands at 1.2 billion, representing 16% of the population worldwide, yet this population's needs are not only difficult to measure but also remain unmet (UNICEF, 2019). Sub-Saharan Africa has 23% of the world's adolescent population, which is a critical mass of adolescents and future adults. Even though there are global commitments to assist adolescents to maintain a healthy life (Lehtimaki & Schwalbe, 2018), most policies and programs render this age group invisible and are not tailored to meet all the needs of the adolescents and their sub-groups, such as early adolescents aged 10 to 14 years, middle adolescents at 15 to 17 years and late

adolescents from 18 to 21 years old. Sub Saharan Africa (SSA) has a burgeoning youthful population. It is projected that this region will have 436 million adolescents and in the year 2050 the number is expected to increase exponentially to 605 million adolescents (UNFPA, 2012). From 2015 to 2020, the estimated median age in Kenya ranged between 18 and 20 (Worldometer, 2020). These adolescents have immense need for mental wellness considering the times they are living in and the level of traumatic experiences today.

A longitudinal study of psychopathology and use of medical services in childhood by William et al., (2007) sampled 790 boys and 630 girls and found that more than two-thirds of children and adolescents reported at least one traumatic event by 16 years of age, with 13.4% of these developing PTSD symptoms. In a cross-sectional study of PTSD levels among adolescents in Kenyan high schools, (Ndetei *et al.*, 2008) 1,110 students (629 males and 481 females), aged 12 to 26 years were assessed using self-administered questionnaires. The findings indicated that male and female adolescents were both equally affected, though those in boarding schools seemed to be more affected, with a 50.5% prevalence of PTSD. The results showed that the most common PTSD symptoms were avoidance and re-experiencing, which occurred in 75% of the students, while hyperarousal was reported in 50%, witnessing violent crime or domestic violence (23.2%), and physical abuse and sexual abuse (16.5%).

Assessment and evaluation of adolescents for PTSD presents a pattern of complex challenges due to their developmental stage. Therefore, it is important to evaluate the adolescent with this in mind; This is crucial because, chronic PTSD can interrupt emotional development (Nader & Pynoos, 1993; Perrin *et al.*, 2000; Pfefferbaum, 1997; Terr, 1991). Adolescents who are victims of physical and sexual abuse may be at even greater risk for behavioral and social difficulties. (Eth, 2001). This implies that age is a risk factor when assessing adolescents for PTSD. In this study parental age and that of adolescents was a risk factor when assessing for PTSD.

In this study Intimate partner violence (IPV) refers to any behavior within an intimate relationship that causes sexual, emotional, financial, psychological and/ physical harm by an intimate partner or ex-partner. On parental Intimate Partner Violence (IPV), it is estimated that every year, over 4.5 million children in the United States are exposed to intimate partner violence (Holmes, 2013). Levendosky *et al.*, (2013) observed that IPV places children at a risk of developing trauma symptoms. The researchers gathered reports on mothers and their children's PTSD symptoms and exposure to IPV annually from ages 1-7 years and found that

half of the children exposed to IPV at each time developed some PTSD symptoms. Moreover, the frequency of IPV witnessed was linked to PTSD symptoms (Levendosky *et al.*, 2013). They also found a correlation between maternal and child PTSD symptoms, suggesting that children may be especially vulnerable to relational PTSD due to their close physical and emotional relationship with their parents.

Adverse Childhood Experiences (ACEs) are described as potentially traumatic events that occur between the ages of 0-17 years. Among them are witnessing violence in the home, experiencing violence, abuse, or neglect, and growing up in a home with substance abuse or a parent suffering from a mental illness (CDC, 2020). A study conducted among young Native Americans aged 15-24 years analyzed the relationship between six ACEs – physical, emotional, and sexual abuse, physical and emotional neglect, and witnessing intimate partner violence - and four mental health outcomes: PTSD, depressive symptoms, poly-drug use, and suicidal attempts (Brockie *et al.*, 2015). Responding to an anonymous web-based questionnaire, 78% of the sample reported at least one ACE while 40% reported at least two. The cumulative effects of exposure to ACEs were significant ($p < 0.001$) for the four outcomes, with each additional ACE increasing the chances of a suicidal attempt, PTSD symptoms (55%) and depressive symptoms (57%).

Longitudinal studies on the effects of Intimate Partner Violence on adolescent are not uncommon. One such study conducted by Cisler *et al.* (2012) was a national survey in the United States of America among adolescents aged 12 - 17 years old ($N=3,614$). It examined whether exposure to IPV at Wave 1 was associated with post-traumatic symptoms, delinquency, depression, and binge drinking in Waves 2 and 3 conducted approximately 1 and 2 years later respectively. The outcome was that adolescents' exposure to IPV at Wave 1 was linked to depression, delinquent acts and binge drinking at Wave 3.

In 2019 the Department of Children Services and the Kenya National Bureau of Statistics conducted a national survey that examined the prevalence, nature, and effects of physical, emotional, and sexual violence against children. The Violence against Children (VAC) Survey was a national household survey targeting females and males aged 13-24 years and heads of households with females and males aged 13-24 years. According to the survey, 62.6% of females experienced multiple incidences of sexual violence in childhood. Violence against children is widespread in Kenya and poses a serious public health, human rights, and social problem. The consequences of violence on its survivors are often devastating, causing

negative outcomes associated with physical health, social mobility, success, and mental health (KNBS, 2019).

Regarding parental mental health problems, studies reveal that it has a negative impact on parenting (Steinberg, 2000). Parents who suffer from a mental illness or who have a substance abuse problem are more likely to be abusive, hostile, and neglectful toward their children. In the long-term it is a vicious circle where parents mental health problems lead to negative parenting, and negative parenting has an impact on adolescent PTSD (Levendosky *et al.*, 2013).

A study examining PTSD symptoms in young children exposed to Intimate Partner Violence (IPV) found that adolescents are at risk of developing trauma symptoms because of exposure to parental IPV. Information on mothers' PTSD symptoms and IPV collected during a seven-year period indicated that nearly half of the children exposed to IPV develop trauma symptoms and regularity of IPV perceived was associated with PTSD symptoms (Levendosky *et al.*, 2013). systematic review of the impact on children who witnessed domestic violence confirmed that many showed symptoms of PTSD. They also found that most showed signs of depression and anxiety disorders while some showed evidence of toilet regressions and others exhibit changes in eating patterns (Pingley's 2017). In Kenya, a cross-sectional study of women in Meru (N=1,974) that looked at histories of abuse and IPV showed that the mothers' childhood experiences predicted more violent attitudes towards their children in adulthood. This suggests that IPV informs family function and hence can create transferable maladaptive behavior to adolescents (Goodman *et al.*, 2017).

From the studies described above, there may be a relationship between adolescent depressive symptoms and exposure to parental IPV. However, results of a clinical assessment and comparison of psychological outcomes of the impact of physical abuse and exposure to parental IPV on Polish adolescents (Rode *et al.*, 2019) found that though exposure to IPV is a traumatic experience for a young person, some adolescents and children received emotional support from one parent after the violent event and as a result showed a distorted cognitive/emotional representation of the situation. These ones did not perceive it as being highly threatening because of the post-violence parental support, usually from the mother. Thus, the occurrence of IPV did not inevitably result in the child developing PTSD, neither did it automatically damage/harm the mother-child relationship.

PTSD in children and adolescents is getting the attention of mental health service providers as a potentially serious disorder that can destroy the biological, psychological, and social development if unattended. The presence of PTSD can persist for years if left untreated and can increase the children's risk of developing other mental health conditions, which can also impair their psychosocial functioning. However, a number of adults who develop PTSD are also parents with dependent children and adolescents. Development of PTSD in parents may impair capabilities and can cause negative alterations to an individual's behavior such as increased anger, reactivity, and social withdrawal.

Adolescents' mental conditions are worsened by specific social problems experienced by their parents/guardians such as depression, PTSD, alcohol abuse and the experience of intimate partner violence (IPV) that causes physical, sexual, or psychological harm. These have been noted to be a major contributor to development of mental health disorders among children and adolescents under their care. Also, Yim and Kofman (2019) argued that there is evidence that IPV is associated with psychological stress, and that stress could produce new instances of IPV. Another study reported that IPV predicted child trauma symptoms and that IPV predicted lower positive and higher negative parenting practices Hence, this present study found that there is a relationship between parental dysfunctionality and PTSD among adolescents.

Methodology

The study recruited 338 participants in total (N=338) in the ratio of 1:1, adolescents to their parents, from 10-day secondary schools in Bungoma county. The total respondents for this study comprised of 169 parents and their adolescents also totaling 169 who were matched for the study. The Charam and Biswas (2013) formula was used to calculate the sample size. The researcher used purposive sampling to get the schools. One school was picked purposively from each sub-county of Bungoma County, giving a total of nine schools. Further, an additional school from the Bungoma County headquarters was picked due to its metropolitan nature compared with other sub-counties. The second phase included convenience sampling to get the students and parents/guardians who would participate in the research. From each school, guidance and counselling teachers helped the researcher to recruit students in a voluntary manner. 338 respondents constituted 91.7% response rate for parents/guardians and their 169 adolescents. Adolescents aged 14 to 21 years, male and female in form two and three in day schools in Bungoma county. (121, 71.6%) were female

and (48, 28.4%) male respondents with the mean age $16.8 \pm$ (SD: 1.704). Frequency of female parents/guardians was higher (101, 59.8%) as opposed to male parent respondents (68, 40.2%). The parents/guardians mean age was $44.0 \pm$ (SD: 11.74)

This study used both researcher-generated socio-demographic questionnaire to assess and other standardized instruments for data collection. The standardized instruments included The Life Events Checklist for DSM-5 (LEC-5) to assess PTSD, Alcohol Use Disorders Identification Test (AUDIT) to determine the severity of alcohol use among parents, and Modified Egna Minnen Beträffande Uppfostran (EMBU-C) Questionnaire to determine parenting behaviour as perceived by the adolescent. IPV was measured by the structured questions in the questionnaires for both parents and adolescents. All the standardized assessment tools had good psychometric properties.

The BDI-II was used to assess prevalence of depression among the respondents. The Beck Depression Inventory (BDI-I 1961, BDI-II -1996) (Beck *et al.*, 1996) was developed by Beck. It is a 21- question multiple-choice self-report inventory, each with four possible responses which measure the intensity, severity, and depth of depression in patients with psychiatric diagnoses. The internal consistency reliability estimate for the BDI-2 was .91. For the same tool, Beck *et al.*, (1988) commented on the psychometric properties of the Beck Depression Inventory, reporting a split-half reliability of .93. In Kenya, it has been widely used in research and has been found to have sound psychometric properties (Harder *et al.*, 2013). The BDI-2 was appropriate for the context of the research because of its simplicity and precise language for the understanding of the adolescents and their parents.

The LEC tool is a widely used brief self-report measure with good psychometric properties based on its similarity to Life Events Checklist for DSM-IV (LEC IV) tested in Kenya during the testing of tools for DSM-5 (APA, 2013). The mean coefficient across items is .45, $p < .001$, which is comparable to the one yielded by other post-traumatic exposure measures. The Alcohol Use Disorder Identification test (AUDIT) has been used in numerous research studies and its validity and reliability have been found to be acceptable (Kokotailo, et al., 2004). In Kenya, the AUDIT has been used in numerous studies and its psychometric properties have been found to be reliable and valid. In a study done at the Moi Teaching and Referral Hospital and the Mosoriot Rural Hospital to assess hazardous alcohol consumption amongst 299 HIV/AIDS patients, the AUDIT scale was used with a score of ≥ 8 being indicative of hazardous drinking according to WHO standards.

The Modified Egena Minnen Beträffande Uppfostran (EMBU-C) Questionnaire was used to determine perceived parenting behavior among adolescents in Bungoma County. The instrument title is translated from Swedish to English to mean “Own memories of childhood upbringing” (Muris *et al.*,2003). It was a self-reporting questionnaire assessing how adolescents perceive parenting behavior. The modified version of EMBU for children (EMBU-C) is derived from the original EMBU, which is an 81-item inventory for assessing adults’ recollections of their parents’ rearing behavior. The modified version, EMBU-C, is a 40-item questionnaire measuring adolescents’ perceptions of three main types of parental rearing, which is emotional warmth, rejection (care), and overprotection (control) as well as anxious parenting behaviors (King, 2008).

A number of studies have employed the modified EMBU-C to assess relationships between children and adolescents’ perceptions of parental rearing, and in particular anxious rearing and symptoms of anxiety (Penelo *et al.*,2012). They further assert that EMBU-C has been found to be a reliable and valid questionnaire for assessing the main dimensions of parenting.

Results

Respondents' Sociodemographic Characteristics

The sociodemographic characteristics of respondents are presented in the Table 1.

Table 1: Respondents' Socio-demographic characteristics

<i>Distribution of Adolescents' Socio-demographic characteristics</i>		Frequency (n= 169)	Percentage (%)
Gender	Male	48	28.4%
	Female	121	71.6%
Age (years) adolescents	14-16	75	44.4%
	17-19	94	55.6%
Education Level	Form two	79	46.7%
	Form three	85	50.3%
	NR	5	3.0%
If Both Parents are Living	Yes	131	77.5%
	No	35	20.7%
	NR	3	1.8%

Distribution of Parent's Socio-demographic characteristics

		Frequency (n)	Percentage (%)
Gender	Male	68	40.2%
	Female	101	59.8%
	NR	1	0.6%
Age of the parents / guardians (Years)	24-28	16	9.5%
	29-39	34	20.1%
	40-50	70	41.4%
	51-61	22	13.0%
	>62	17	10.1%
	NR	10	5.9%
Religion	Christian	153	90.5%
	Muslim	13	7.7%
	NR	3	1.8%
Marital Status of the parents / guardians	Married	135	79.9%
	Single/ Widowed	1	0.6%
	Divorced/Sep arated	15	8.9%
		14	8.3%
	NR	4	2.4%
Type of Marriage	Monogamous	119	70.4%
	Polygamous	39	23.1%
	NR	11	6.5%
No of Children (Parents)	No child	4	2.4%
	1-3	34	18.4%
	4-6	83	49.2%
	7-9	40	23.7%
	>10	11	6.6%
Occupation Status of the parents	Employed	41	24.3%
	Self employed	105	62.1%
	Unemployed	14	8.3%
	NR	9	5.3%

Kind of Housing	Permanent	28	16.6%
	Semi-Permanent	131	77.5%
	Permanent		
	NR	10	5.9%

Table 1 presents socio-demographic characteristics of both adolescents and parents. In terms of adolescents respondents' gender, the frequency of female respondents was higher (121, 71.6%) as opposed to male (48, 28.4%). Age distribution showed that frequency of adolescent respondents aged 17-19 was higher (94, 55.6%) compared to ages 14-16 (75, 44.4%). Most students in rural schools were found to be older in lower classes hence the average age of 16.8. Concerning the respondents' level of education, the frequency of respondents in Form 3 was slightly higher (85, 50%) compared to Form 2 (79, 46.7%).

For the parents/guardians, the distribution by gender showed that the frequency of female respondents' (parents/guardians) was higher at (59.8%) as opposed to male respondents at 40.2%. Age distribution showed that the frequency of parents/guardians 40-45 years was higher at (41.4%) compared to aged 29-34 at 20.1%, aged 51-61 years at 13%, above 62 years at 10.1% and aged 24-28 years at 9.5%. As regards parents'/guardians' religion, the frequency of Christian religion affiliation was higher at 90.5% as opposed to Muslim at 7.7% Bungoma is predominantly a Christian populace hence the results. The marital status of the parents/guardians of the participants indicated that those who were married had higher frequency at 79.9% compared to the widowed at 8.9%, divorced/separated at 8.3% and single parents at 0.6%. Also, concerning the type of marriage of the parents/guardians, the frequency of monogamous marriage was higher at 70.4% compared to polygamous marriage at 23.1% This indicates that most respondents are in monogamous marriages however we still have a number that are in polygamous relationships. A number of parents were single due to widowhood and separation.

Furthermore, Table 1 shows the frequency of parents/guardians with 4-6 children were higher at 49.2% compared to those with 7-9 children at 23.7%, then with 1-3 children at 18.4% and more than ten children at 6.6%. In terms of occupational status of the parents, frequency of self-employed status was higher at 62.1% compared to those employed at 24.3% and unemployed at 24.3%. Those that indicated that they were self-employed or employed were mostly farmers and running small businesses like motorbike riders and farm workers. Table 2 also presents the kind of housing in which the parents/guardians of the respondents lived. The frequency of semi-permanent housing was higher at 77.5% as opposed to permanent housing

at 16.6% This item was used to measure the socio-economic status of the parents. From these results most parents are of low socio-economic status.

Prevalence of parental dysfunctionality (IPV, Alcohol use, and PTSD) among parents/guardians

Parental Dysfunctionality was measured under three constructs: existence of IPV, alcohol use, and PTSD among the parents/guardians. The results are shown in Table 2

Table 2: Prevalence of parental dysfunctionality (IPV, Alcohol use, and PTSD) among parents/guardians

<i>Exposure to IPV</i>		
Variable	Frequency (n)	Percentage (%)
Physical Abuse	55	32.5%
Psychological Abuse	96	56.8%
Emotional Abuse	59	34.9%
Sexual Violence	36	21.3%
<i>Parents AUDIT Scores</i>		
0-7 (Low risk)	14	8.3%
8-15 (Medium Risk)	13	7.7%
16-19 (High Risk)	2	1.2%
20-40 (Dependence)	6	3.6%
No Alcohol Use	131	79.3%
Total	169	100.0%
<i>Prevalence of PTSD</i>		
17-27 (No PTSD)	35	20.7%
28-29 (Some PTSD Symptoms)	7	4.1%
30-44 (Moderate to Moderately High PTSD symptoms)	57	33.7%
45-85 (High Severity of PTSD Symptoms)	67	39.6%
NR	3	1.8%
Total	169	100.0%

The prevalence of parents who reported experiencing IPV in their relationships was 63.3%. This is evidence that there was a high occurrence of IPV among the parents who participated in the study. As seen in Table 2, the frequency of IPV experienced by the parents/guardians of the respondents was categorized by type of violence and was found to be higher for psychological abuse at 56.8%(where intentional mental anguish is inflicted on a spouse affecting their mental capacity) compared to emotional abuse at 34.9%,(described here as abuse that has an effect on the way one feels about themselves) physical abuse at 32.5% and sexual violence at 21.3%. This implies that the parents/guardians of the respondents experienced more of psychological abuse than other forms of IPV. Cumulatively, 28 (16.6%) of the parents reported experiencing the four forms of abuse namely physical abuse,

psychological abuse, emotional abuse, and sexual violence. Parents who experienced only one form of abuse were 43 (25.4%), while the remaining 36 (21.3%) experienced two or three forms of abuse indicating that there are not only high levels of IPV but a combination of different forms of IPV. in rural families in Bungoma county.

The second marker of parental dysfunctionality was the alcohol use which was assessed using the AUDIT. More than three-quarters of the parents 131 (79.3%) reported no alcohol use. However, it was found that six (3.6%) had alcohol dependency. The rate of alcohol use disorder was calculated based on the total number of respondents who were at high risk and those that had alcohol dependence. Parents with Alcohol Use Disorder (AUD) comprised 8 (4.8%). Those with low to medium risk of alcohol use disorder were 27 (16.0%)

The third marker of the parental dysfunctionality was the parental PTSD which was assessed using the PTSD severity scale. As shown in Table 5, most parents 67 (39.6%) had high severity of PTSD symptoms followed by 57 (33.7%) of parents with moderate to moderately high PTSD symptoms. Only 35 (20.7%) of parents had no PTSD and the remaining 7 (4.1%) had some PTSD symptoms. The mean score was 40.82 (SD= 14.24), which showed that most parents involved in the study had moderate to moderately high PTSD symptoms. As indicated on Table 5, the frequency of high severity of PTSD symptoms was elevated among the parents/guardians at 39.6% compared to moderate-to-moderate high PTSD symptoms at 33.7%.

Based on the results of this research, age may be a contributing factor to PTSD levels among parents. The 18- 28 year-old respondents and those over 60 years old had high levels of PTSD. Most parents were aged 28 to 34, indicating that they got their children at the age of 13-17 years. Teen pregnancy is a great source of trauma and eventually PTSD if not professionally managed. The researcher therefore postulates that this could be a contributor to the occurrence of parental PTSD. Those in the 40-50 age bracket (64.4%) were the majority who may face challenges of parenting adolescents. This is also a period in their lives when they have many responsibilities as parents.

Prevalence of PTSD among the Adolescents

The prevalence rate was calculated based on the total number of respondents who had moderate to high severity of PTSD symptoms in this study. The general prevalence of PTSD was 80.4%. At least twenty-nine participants or 17.1% of the adolescents had minimal or no symptoms of PTSD, while 139 (80.4%) respondents indicated moderately high to high

severity of PTSD symptoms. The prevalence of PTSD by severity among adolescents is shown below.

Table 3: Adolescent PTSD Severity Scores Interpretation

Variable	Frequency (n)	Percentage (%)
17-27 (No Severity of PTSD)	20	11.8%
28-29 (Some PTSD Symptoms)	9	5.3%
30-44 (Moderate to Moderately High PTSD Symptoms)	68	40.2%
45-85 (High Severity of PTSD Symptoms)	68	40.2%
NR	4	2.4%
Total	169	100.0%

Table 3 presents the severity of PTSD among the adolescents. The Adolescent PTSD levels were assessed using the PTSD severity scale. As indicated in Table 3, the adolescents were presenting with moderate to moderately high PTSD symptoms at 40.2% and high severity of PTSD symptoms at 40.2%. Respondents with no severity of PTSD were 11.8%, whereas 5.3% of the respondents had no PTSD symptoms. Overall, the mean score was $42.394 \pm$ (SD: .13.54), which means on average, the adolescents had moderate to moderately high PTSD symptoms. These levels of PTSD amongst adolescents may be multifactorial as adolescence itself is a stressful period in a child's development but could also be due to the fact that most adolescents may have normalized trauma and hardships.

Correlation between Parental Dysfunctionality and Adolescents PTSD

The parental dysfunctionality markers were IPV, AUD and parental PTSD. Pearson's correlation test was used to determine the relationship between parental dysfunctionality markers (based on assessment scores) and PTSD. The results were as indicated in Table 4.

Table 4a: Correlation Test on Parental Dysfunctionality Constructs

		IPV	Alcohol Use	Parents PTSD
IPV	<i>R</i>	1		
	<i>P</i>			
	<i>N</i>	107		
Alcohol Use	<i>R</i>	-.038	1	
	<i>P</i>	.856		
	<i>N</i>	26	35	
Parents PTSD	<i>R</i>	.301**	.135	1
	<i>P</i>	.002	.439	
	<i>N</i>	107	35	166
	<i>N</i>	107	35	166

As seen in Table 4 above, there was a positive and significant relationship between parental PTSD scores and presence of IPV ($r = .301, p < .002$). This indicates that as the parental PTSD severity scores increase then IPV scores also increase (with reference to 1), this implies that PTSD in parent respondents was associated with higher chances of IPV.

Table 4b: Correlation between Parental Dysfunctionality and Adolescents PTSD

		IPV	Alcohol use	Parents PTSD	Adolescents PTSD
Adolescents	<i>R</i>	.010	.200	.087	1
PTSD	<i>P</i>	.920	.256	.274	
	<i>N</i>	103	34	162	165

The main objective of this article was to evaluate the relationship between parental dysfunctionality and adolescent PTSD. Parental dysfunctionality was measured by the following markers: parental IPV, AUD, and parental PTSD, while adolescent PTSD was assessed using the Life Events Checklist for DSM-5 (LEC-5). Pearson correlation was used to determine the relationship between parental dysfunctionality and adolescent PTSD. As presented in Table 8, there was no significant correlation between the parental dysfunctionality markers and adolescent PTSD ($p > 0.05$).

Discussion

Parental dysfunctionality markers were assessed in terms of parental Intimate Partner Violence (IPV), parental alcohol use and PTSD. Findings from this study showed a prevalence of IPV among the parents/guardians of the adolescents at 63.3%. The prevalence of other components of IPV such as psychological abuse at 56.8%, emotional abuse at 34.9% and sexual violence at 21.3%. These findings are like the WHO statistics based on a growing number of population-based surveys on prevalence of IPV from more than twenty-four adults in 10 countries. The statistics issued by WHO affirmed that IPV is widespread where 49% had reported ever having experienced physical violence, 59% had reported sexual violence, and 75% had ever reported experiencing psychological/emotional abusive act from intimate partners. Another study on the prevalence and determinants of IPV among 400 adult women in Nigeria aged 18-73 years revealed a lifetime prevalence of IPV at 73.3%. These findings suggest that intimate partner violence among parents/guardians of the adolescents is a public social problem and clinicians should pay more attention to the phenomenon.

The results from this study also indicated the prevalence of alcohol use disorder among parents of the respondents at 4.8% and alcohol dependency at 3.6%. This finding concurs with a previous study where overall prevalence of alcohol use disorder was found to be at 4.8%, alcohol dependency was at 1.9%, and sub-threshold dependence was at 7%. Another study among adults in USA indicated that 5.3% of adults ages 18 and older had AUD. However, a significant higher statistic was reported by National Survey on Drug Use and Health (2017) that 74% of adults in American adults are suffering from alcohol use disorder.

Furthermore, this study also found the prevalence of parents' PTSD at 73.4% and adolescent's PTSD at 80.4%. These results from this study seemed to be high compared to emerging data from empirical studies and may arise due to the way they may have selected their samples. For example, a meta-analysis that included sixteen studies on pooled PTSD in parents of children/adolescents showed a prevalence rate of 19.6% in mothers, 11.6% in fathers and 22.8% in parents. Similarly, existing data on prevalence of PTSD among adolescents whose parents suffer dysfunctions including IPV and AUD showed that the result from this present study seems to be higher. For example, Pingley's 2017. reported the prevalence of PTSD among adolescents whose mothers experienced IPV at 20.4%. In this study therefore what could have elevated the scores for PTSD could be various factors including normalizing PTSD in most families, and also PTSD may have been passed down through traumatic incidents and never discussed or dealt with. Further research in this area is recommended as research in mental health in rural setups has been scarce.

Additionally, findings from this study showed that there was a positive and significant relationship between parental PTSD scores and presence of IPV ($r = .301, p < .002$). This study found no correlation between other parental dysfunctionality markers and adolescent PTSD ($p > 0.05$). Some findings in other studies have agreed with this although there have been inconsistencies. For example, Christie et al. (2019) argued that parental impaired functioning such as increased levels of parenting stress, lower parenting satisfactions, less optimal parent-child relationship are associated with adolescents' development of mental disorders such as depression, PTSD, and anxiety. On the contrary, findings in a meta-analysis of 14 studies that investigated the association between parenting dysfunctions and youth PTSD symptoms implied that negative and positive parents' functionality and Child/Adolescent PTSD symptoms did not statistically differ in magnitude.

Conclusion

This study has some significant findings, PTSD amongst parents and their adolescents in this community is quite high. The prevalence of IPV amongst the parents was also high. There was a significant and positive correlation between PTSD and IPV among parents/guardians whereas; there was no relationship between other parent's dysfunctionality and PTSD amongst their adolescents. This brings in an interesting angle to mental wellness studies and correlations in the rural setups that have been scarce. This study therefore suggested that the cofounders and mediating factors to PTSD among adolescents and parental dysfunctionality should be further investigated.

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