

## **IPC Extended Abstract (Not more than 4 pages)**

### **A decomposition analysis of variations in youth exposure to home and school-based violence and depressive symptoms in Gauteng Province, South Africa**

#### **Background**

Violence and depression remain key challenges of public health concern disproportionately affecting adolescents and young adults. Recent estimates suggest that the prevalence of depression and violence among young people is increasing, with young adults aged 20 to 24 years being the most affected (Sharratt, Mason et al. 2023, Yang, Lv et al. 2024). Violence and depression are intricately linked, given that exposure to violence and abuse is a major risk factor for depression among young people (World Health Organisation 2021). Depression has serious negative repercussions on people's health and well-being as it contributes to increased social isolation and suicide, which is the fourth leading cause of death among young adults aged 15 to 29 years (World Health Organisation 2021). Young adults may either be perpetrators or victims of violence, which commonly occurs in social institutions like school or home. Apart from increasing the risk of depression among young people, home violence and school violence predisposes young adults to anti-social behaviours, substance abuse and other problems relating to conduct (Mrug and Windle 2009). Although the negative impact of some forms of violence (e.g., sexual violence and intimate partner violence) on depression among young people is well documented (Chen, Murad et al. 2010, White, Sin et al. 2024), the influence of home or school-based violence (e.g., assault at school or home) on depression remains under-researched, especially in South Africa. With the high incidence of violence among young people in South Africa (Sui, Massar et al. 2020), it is important to understand how disparities in youth exposure to violence at school or home influence depressive symptoms in the country. Therefore, this study seeks to investigate the variations in youth exposure to at-home or school-based violence and depression in South Africa.

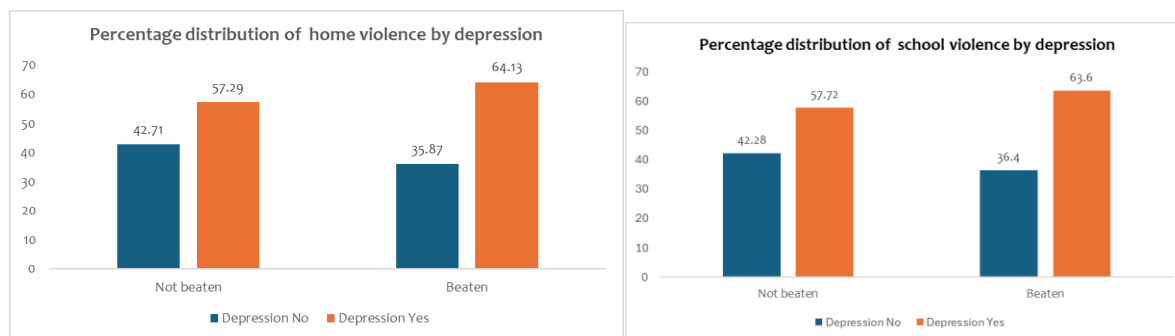
#### **Methods**

This study utilised a secondary dataset from the Quality of Life 6 (2020/21) Survey conducted by the Gauteng City-Region Observatory in South Africa, which examined well-being, living conditions, and socio-economic challenges. Data from the sample of 5,805 records were analysed using logistic regression and non-linear decomposition models to determine the relationship between home and school-based violence and depressive symptoms among youth (18-39 years) exposed to home and school-based violence, in Gauteng Province, South Africa. The analysis identified the contributions of differences in characteristics (E) and coefficients (C) to these disparities, with significance defined at  $p < 0.05$ .

#### **Results**

##### **Frequency distribution of home or school-based violence and depression**

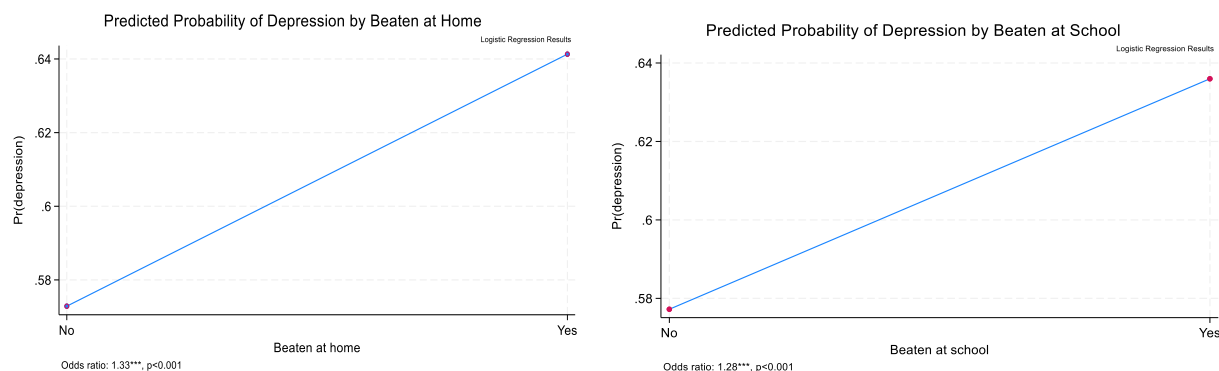
The results show that young adults who experienced violence, whether at home or school, were more likely to suffer from depression, with 64.13% of those beaten at home reporting depression, compared to 57.29% of those who were not beaten (Figure 1). Similarly, 63.6% of those beaten at school reported depression compared to 57.72% who were not beaten.



**Figure 1: Percentage distribution of home and school violence on depression among young adults in South Africa**

### Unadjusted logistic regression analysis of home and school-based violence and depressive symptoms

Results showed that exposure to violence significantly increased the likelihood of depression among young adults in South Africa (Figure 2). Being beaten at home raises the odds of depression by 33% (OR = 1.33, 95% CI: 1.20- 1.48;  $p < 0.001$ ), while being beaten at school raises the odds by 28% (OR = 1.28, 95% CI: 1.15- 1.42;  $p < 0.001$ ).



**Figure 2: Relationship between exposure to home or school-based violence and depressive symptoms among young adults in South Africa**

### Unadjusted decomposition analysis of the variations of home or school-based violence and depression

#### Analysis of the relationship between inequality in home and school-based violence and depression

The results further revealed that young adults beaten at home were most likely to develop depression (64.13% vs. 57.29%). The intensified effect of home violence on depression was the primary driver for this difference, as shown by the significant coefficients ( $p < 0.001$ ) contributing 105.66% to the difference. While differences in characteristics slightly reduce the difference by 0.4% ( $p = 0.001$ ) (Table 1).

**Table 1: A decomposition analysis of the relationship between inequality in home-based violence and depression**

Variable (n=5,805)	Difference due to characteristics (E)		Difference due to coefficient (C)	
	Coefficient	Percentage (%)	Coefficient	Percentage (%)
<b>The total disparity percentage explained</b>	<b>-0.004**</b>	<b>64.13</b>	<b>0.072***</b>	<b>57.29</b>

School-based violence significantly increased the likelihood of depression, with those beaten at school having a higher predicted probability of depression (63.60% vs. 57.72%). The primary driver of this difference is how school violence intensifies the impact of various factors on depression, as shown in the statistically significant coefficients ( $p < 0.001$ ). Although characteristics alone slightly reduced the difference ( $p = 0.009$ ), their impact was minimal (Table 2).

**Table 2: Analysis of the relationship between inequality in school-based violence and depression**

Variable (n=5,805)	Difference due to characteristics (E)		Difference due to coefficient (C)	
	Coefficient	Percentage (%)	Coefficient	Percentage (%)
<b>The total disparity percentage explained</b>	<b>-0.004**</b>	<b>63.60</b>	<b>0.063***</b>	<b>57.72</b>

## Discussion

The study found that exposure to violence, whether they were beaten at school by a teacher or headmaster violence or at home by a parent or guardian, was significantly associated with an increased likelihood of depression among young adults in South Africa. Similar findings were reported in previous studies in South Africa (Distiller, Theron et al. 2007, Bach and Louw 2010) and elsewhere (Chen, Corvo et al. 2017). Various mechanisms have been postulated to explain the positive association between exposure to violence and depression. For example, some evidence suggests that physiological changes associated with the experience of violence contribute to depression among victims (Crofford 2007), while others revealed that the experience of constant fears and stress following violence exposure could lead to social withdrawal and isolation, if not properly managed, thus culminating in depressive symptoms (Miliauskas, Faus et al. 2022). Meanwhile, the findings also showed that young adults beaten at home had relatively higher odds of depression than those beaten at school, suggesting that home violence may have a more intensified effect on depression than school violence. Therefore, this study highlights the need for enhanced efforts and policies to combat both home and school violence among young adults in South Africa. Such interventions could be targeted at increasing the conscientisation of students, parents, teachers, and community members on the negative impact of social institutional-based violence on depression among young adults in the country. This will not only contribute towards reducing the occurrence of violence but also promote monitoring and social support for victims, which is important in reducing the risk of depression among the victims.

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