

# Is Exposure to Inter-Parental Violence Associated with Recent Intimate Partner Violence among Women in Kibra Informal Settlements? Evidence from a cross-sectional study

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## **Abstract**

### **BACKGROUND**

Exposure to inter-parental violence has been associated with Intimate Partner Violence (IPV). However, research in Kenya's informal settlements (ISs) has been limited in determining this empirical link. This study aimed to examine if inter-parental violence exposure (IPVE) is associated with IPV in the ISs of Kibra, Nairobi, Kenya.

# **METHODOLOGY**

A cross-sectional study design was employed with 1,068 women living in Kibra ISs selected through systematic random sampling. A modified questionnaire from the Demographic Health and Survey (DHS) targeting women's experience of IPV measured by combining physical, sexual, and emotional violence was used. The main explanatory variable was women or their partner's IPVE during childhood. Data were analysed using STATA v.15. RESULTS

The study revealed that 73% of women exposed to inter-parental violence had experienced IPV. Meanwhile, of women whose partners had been exposed to inter-parental violence, 75% had experienced IPV. Women exposed to inter-parental violence had increased odds of experiencing IPV AOR=2.27 (95% CI: 1.56-3.29), while women whose partners were exposed to inter-parental violence were positively associated with IPV AOR=1.59 (95% CI: 1.01-2.48).

# **CONCLUSION**

This study shows that IPV is associated with IPVE among women in Kibra ISs. Targeted interventions may require social and behavioural change implementation that can break the cycle of violence among women and partners exposed to inter-parental violence during childhood. Further research can delve into robust evidence-based study designs to understand IPV and IPVE.

**Keywords:** Intimate Partner Violence, Inter-parental Violence

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# Introduction

Intimate partner violence (IPV) remains a pervasive and deeply troubling issue worldwide, that poses significant risks to the rights, safety, well-being, and health of individuals (1). The main risk factor of IPV is gender, where women are more likely to be victims of IPV (2) and are disproportionately affected by its devastating consequences

compared to men. In their lifespan, approximately 27% of women aged 15–49 are victims of physical or sexual violence (3). Another risk factor strongly associated with IPV is low socioeconomic status, which is closely linked to alcohol abuse, experiences of childhood parent-perpetrated violence, IPVE and coping with IPV (4). Interestingly, impulsivity, age, relationship factors, and



annual household income are also associated with IPV (5). Women who have experienced IPV are at risk for a variety of mental health issues, including anxiety, depression, induced abortion, sexually transmitted infections (STIs), severe injuries, and even suicidal ideation (6). Other effects of IPV are farreaching and extend beyond the victims. IPV has been linked to negative effects on children, families, communities, and societies, as it imposes significant health, economic, and social burdens (7). In Kibra ISs, one of Kenya's most densely populated and economically disadvantaged areas, the burden of IPV among women is a pressing concern (8).

While the majority of studies have focused on IPV and its correlates, including education level alcohol abuse. and employment, a significant portion has centred on the broader population, offering limited insights into marginalised contexts such as Kibra ISs. Hence there is a need to conduct research on the association of IPVE on IPV among women living in ISs as a standalone data and offer preventive measures. This paper delves into a critical facet of the problem, examining the association between IPVE and recent incidents of IPV among women in Kibra ISs. By shedding light on this intersection, we aimed to not only deepen our understanding of the dynamics of IPV but also to inform policies and interventions geared towards breaking the cycle of violence and promoting healthier and safer communities. We aimed to determine if IPVE is associated with IPV in the ISs of Kibra, through a cross-sectional study.

# Materials and methods Study area

The study setting was in the informal villages of Kibra Sub County in Nairobi, Kenya. The sub-county encompasses an area of 2.5km² with a population of 181 509 making it among the densely populated ISs in Sub-Saharan Africa (9). Kibra is also divided into 15 villages out of which 12 are informal (10). The informal villages include Kianda, Soweto West,

Raila, Gatwekera, Kisumu Ndogo, Lindi, Laini Saba, Silanga, Kambi Muru, Makina, Mashimoni, and Soweto East. The populations in Kibra are ethnically diverse, and most inhabitants live within low socioeconomic means (8).

# Study design

A cross-sectional study design was conducted by adapting a survey model based on the 2017 Demographic and Health Surveys (DHS) (11) module, which was administered through face-to-face interviews.

# Study population

This study targeted 1100 women from seven informal villages in Kibra, that were selected out of the potential 12 villages. Women from age 15-49 years who had lived in Kibra urban informal settlements for at least 6 months were included in the study while women who were visiting were excluded from the study.

# Sample size determination

Epi info version 7.2.5.0 (13) was used to determine the minimum sample size at 384 at CI: 95%. However, being a wider area with high population dynamics, the sample size was increased to 1100 with each village given a proportionate size based on the number of community health units present in each informal village. A total number of 1068 women correctly filled out the interview and passed all the inclusion criteria of the study.

### Data collection tools

A modified structured questionnaire was used to collect quantitative data. Trained women interviewers assisted by community health promoters interviewed the participants, in safe locations. The validity and reliability tests were carried out by engaging expert opinions and conducting a pilot study in the ISs of Mathare. The questionnaire was revised to better align with the study objectives and be sensitive as well.

# Sampling

Seven villages were selected through a lottery from a potential of 12 informal villages. These include Makina, Gatwekera, Lindi, Laini



Saba, Kambi Muru, Kianda, and Mashimoni. Systematic random sampling was then employed in the selection of every 10<sup>th</sup> household for any eligible participant. In households that had more than one eligible participant, Kish methodology sampling was used to select participants to minimize bias (14).

# Data collection procedures

Dependant variable. The primary dependent variable in this study was Intimate Partner Violence (IPV), which was assessed using a comprehensive, modified DHS module covering three dimensions: physical, emotional, and sexual violence (15). Physical violence was measured by asking whether, in the past 12 months, the respondent's partner had attacked them with a knife or object, threatened them with a knife or object, hit or slapped them, pushed or kicked them, or choked them. Emotional violence was evaluated through questions on whether the partner had ever insulted or humiliated the respondent in front of others, threatened to harm them or someone they care about, or insulted them in a way that made them feel bad about themselves. Sexual violence was assessed by inquiring whether the partner had ever physically forced the respondent to have sexual intercourse, forced them to perform any other sexual acts against their will, or used threats to coerce them into performing sexual acts they did not want to engage in (15). Responses to these IPV items were dichotomized, with a positive response to any question within a sub-scale of violence scored as '1', indicating the presence of that type of violence, and a negative response scored as '0', indicating its absence.

In this study, the main explanatory variable was IPVE. Women were asked if they had ever witnessed their mother beaten by their father and if their partner had ever revealed they were exposed to the same. Those assenting to yes were determined as exposed to inter-parental violence while those that responded as No were grouped as not exposed. To control for other

covariates, variables like age, educational level, household income, access to water and sanitation facilities, alcohol consumption, coping with violence and ability to seek help were included during modelling.

# Statistical analyses and presentation

Data were cleaned and analysed by use of STATA v.15. Description analysis was used to determine the characteristics of respondents. Binary Logistic Regression was used to model the explanatory variables which were IPVE to determine the crude odds ratio (COR). The univariate analysis was also conducted for covariates to control by getting COR. Multivariable Logistic Regression (MLR) was then used to estimate the association between explanatory and IPV while controlling for the covariates to obtain the adjusted odds ratio (AOR) at p=0.05. Findings were presented using tables.

### **Ethical considerations**

This study was conducted following the WHO guidance on women and IPV (16). Informed consent was obtained from each participant after explaining the study's purpose, procedures, and potential risks and benefits. Due to the sensitivity and stigma associated with the study, women aged 15-18 years of age were immediately classified as mature minors (17) and parental/guardian consent waiver was obtained from the Research Ethics Committee (REC). This study was also approved by the Amref Ethics and Scientific Committee (ESRC), protocol number AMREF-ESRC P1347/2022, the National Commission for Science Technology &Innovation (NACOSTI; REF: 297366) and approval from the Nairobi County Department of Health, wellness and Nutrition, (REF: NCCG/HWN/REC/341).

### Results

The majority of the women were aged 25-34 years, making up 46.4%, with a mean age of 30.4 years and a standard deviation of 7.5 years (Table 1). Most women had secondary education (47.5%), followed by primary education (40.4%), while 51.9% of their



partners or ex-partners had secondary education (Table 1). Among the women, 16.8% were in polygamous unions, 59.8% had 2-4 children, and 58.5% were unemployed. In contrast, 48.0% of their partners or ex-partners were employed. Most households had an income of less than 15,000 Kenya Shillings per month (72.6%). Nearly half of the women reported having access to water (49.9%), and the majority had access to a toilet (66.8%). Additionally, alcohol consumption was

reported by 7.1% of women and 27.5% of their partners, 15.5% sought help, and 13.4% copped with IPV (Table 1).

The majority of the women recorded having experienced any form of IPV (64%) with physical violence (49.4%) being the most prevalent (Table 2). Women who were not exposed to inter-parental violence but had experienced IPV (58%), while women who experienced IPVE and had experienced IPV represented 73% (Table 3).

*Table 1:* Respondent's Demographic Characteristics (N=1068)

|  | Variables                       | n    | %    |
|--|---------------------------------|------|------|
|  | Respondent's Age (Mean and SD)* | 30.4 | 7.5  |
|  | 15-24                           | 263  | 24.6 |
|  | 25-34                           | 496  | 46.4 |
|  | 35 and above                    | 309  | 28.9 |
| Respondent's Education, level            | Primary                         | 431  | 40.4 |
|  | Secondary                       | 507  | 47.5 |
|  | College/TVET                    | 108  | 10.1 |
|  | University                      | 22   | 2.1  |
| Marital status                           | Single                          | 733  | 68.6 |
|  | Married                         | 114  | 10.7 |
|  | Divorced                        | 85   | 8.0  |
|  | Cohabiting                      | 123  | 11.5 |
|  | Widowed                         | 13   | 1.2  |
| Partner or Ex-partner's Education, level | Primary                         | 301  | 28.2 |
|  | Secondary                       | 554  | 51.9 |
|  | College/TVET                    | 164  | 15.4 |
|  | University                      | 49   | 4.6  |
| Partner has another wife                 | Yes                             | 178  | 16.8 |
|  | No                              | 883  | 83.2 |
| Number of Children                       | 0 to 1                          | 322  | 30.2 |
|  | 2 to 4                          | 639  | 59.8 |
|  | 5 and above                     | 107  | 10.0 |
| Respondent Employment Type               | Employed                        | 126  | 11.8 |
|  | Self-employed                   | 317  | 29.7 |
|  | Unemployed                      | 625  | 58.5 |
| Partner or Ex-partner employment type    | Employed                        | 513  | 48.0 |
|  | Self-employed                   | 307  | 28.8 |
|  | Unemployed                      | 248  | 23.2 |
| Average household monthly income         | 15,000>                         | 293  | 27.4 |
|  | <15,000                         | 775  | 72.6 |
| Takes alcohol                            | Coping with violence            | 143  | 13.4 |
|  | Respondent takes alcohol        | 76   | 7.1  |
|  | Partner takes alcohol           | 294  | 27.5 |
|  | Sought help                     | 166  | 15.5 |
|  | Access to water                 | 533  | 49.9 |
|  | Access to toilet                | 714  | 66.8 |



Similarly, women whose partners had been experienced IPVE and exposed to IPV was 75% (Table 3). In Table 4, women (COR=1.96, CI: 1.50-2.55), and who had partners exposed to inter-parental violence (COR=1.93, CI: 1.40-2.67) during childhood were likely to experience IPV compared to their counterparts.

In Table 5, univariate analysis for potential modifiers indicated a likelihood of experiencing IPV increased with age, (COR=1.48, CI: 1.09-2.01), above 35 (COR=1.58, CI: 1.12-2.21) and those with partners above 35 (COR=1.75, CI: 1.12-2.74). Similarly, women with primary education level (COR=2.62, CI: 1.75-3.92) or secondary education level (COR=1.54, CI: 1.04-2.26) exhibited a higher likelihood of IPV compared to their counterparts (Table 5). Similar patterns

were observed for partners' education levels, with primary (COR=2.04, CI: 1.41-2.93) and secondary education (COR=1.60, CI: 1.16-2.20). Polygamous union (COR=2.36, CI: 1.61-3.47) and an increased number of children (COR=2.17, CI: 1.34-3.52) were linked to higher IPV likelihood (Table 5). Access to primary water was linked to a lower likelihood of experiencing IPV (COR=0.51, CI: 0.50-0.66) same to as access to toilet facilities (COR=0.58, CI: 0.44-0.77).

Conversely, women perceiving IPV as an acceptance norm (COR=1.59, CI: 1.07-2.35), consuming alcohol (COR=5.24, CI: 2.49-11.03), having alcoholic partners (COR=6.94, CI: 4.68-10.29), and seeking help (COR=9.01, CI: 4.93-16.45) were more likely to experience IPV.

*Table 2:* Prevalence of Components of IPV (N=1068)

| Variables                      | n   | %    |
|--------------------------------|-----|------|
| Experienced any IPV            | 684 | 64.0 |
| Experienced sexual violence    | 90  | 8.4  |
| Experienced emotional violence | 385 | 36.1 |
| Experienced physical violence  | 528 | 49.4 |

*Table 3:* Percentage distribution of recent IPV by inter-parental violence

|   | Physical vi | olence    | Emotional v | /iolence  | Sexual viole | ence      | IPV       |     |
|---|-------------|-----------|-------------|-----------|--------------|-----------|-----------|-----|
| Variable                                    | Yes n (%)   | No n (%)  | Yes n (%)   | No n (%)  | Yes n (%)    | No n (%)  | n (%)     | N   |
| Exposure to inte violence                   | er-parental |           |             |           |              |           |           |     |
| No  | 272(42.6)   | 366(57.4) | 207(32.5)   | 431(67.5) | 39(6.1)      | 599(93.9) | 370(58.0) | 638 |
| Yes   | 256(59.5)   | 174(40.5) | 178(41.4)   | 252(58.6) | 51(11.9)     | 379(88.1) | 314(73)   | 430 |
| Partner exposed to Inter- parental violence |             |           |             |           |              |           |           |     |
| No  | 377(45.5)   | 451(54.5) | 275(33.2)   | 553(66.8) | 49(5.9)      | 779(94.1) | 504(60.9) | 828 |
| Yes   | 151(62.9)   | 89(37.1)  | 110(45.8)   | 130(54.2) | 41(17.1)     | 199(82.9) | 180(75.0) | 240 |

*Table 4:* Percentage distribution of Recent IPV and binary regression of IPV by Inter-parental violence

|                        | Variable | IPV       |           | COR(95% CI)     | P-value |
|------------------------|----------|-----------|-----------|-----------------|---------|
|                        |          | Yes n (%) | No n (%)  |                 |         |
| Exposure to IPV        | No*      | 370(58.0) | 268(42.0) | -               | -       |
|                        | Yes      | 314(73.0) | 116(27.0) | 1.96(1.50-2.55) | < 0.001 |
| Partner exposed to IPV | No*      | 504(60.9) | 324(39.1) | -               | -       |
|                        | Yes      | 180(75.0) | 60(25.0)  | 1.93(1.40-2.67) | <0.001  |



After adjustments for covariates, the link between IPVE and IPV persisted, showing a positive and statistically significant association (Table 6). The AOR was 2.27 (95%)

CI: 1.56-3.29) for women who were exposed to inter-parental violence and 1.59 (95% CI: 1.01-2.48) for those who had partners exposed to inter-parental violence.

**Table 5:** Binary Regression for Covariates and IPV

| Binary Regression for Co              | Variable                       | IPV       |           | COR(95% CI)      | P-value |
|---------------------------------------|--------------------------------|-----------|-----------|------------------|---------|
|                                       |                                | Yes       | No        | ` '              |         |
| Respondent's Age                      | 15-24*                         | 149(56.7) | 114(43.3) | -                | -       |
| · ·                                   | 25-34                          | 327(65.9) | 169(34.1) | 1.48(1.09-2.01)  | 0.012   |
|                                       | 35 and above                   | 208(67.3) | 101(32.7) | 1.58(1.12-2.21)  | 0.009   |
| Partner or ex-age                     | 15-24*                         | 55(57.9)  | 40(42.1)  | -                | -       |
| <u> </u>                              | 25-34                          | 249(57.2) | 186(42.8) | 0.97(0.62-1.52)  | 0.907   |
|                                       | 35 and above                   | 380(70.6) | 158(29.4) | 1.75(1.12-2.74)  | 0.014   |
| Respondent's Education<br>Level       | College/TVET/University*       | 65(50)    | 65(50)    | -                | -       |
|                                       | Primary                        | 312(72.4) | 119(27.6) | 2.62(1.75-3.92)  | <0.001  |
|                                       | Secondary                      | 307(60.6) | 200(39.4) | 1.54(1.04-2.26)  | 0.03    |
|                                       | Partner or Ex Education, level | ` ′       | , ,       | ,                |         |
|                                       | College/TVET/University*       | 114(53.5) | 99(46.5)  | -                | -       |
|                                       | Primary                        | 211(70.1) | 90(29.9)  | 2.04(1.41-2.93)  | < 0.001 |
|                                       | Secondary                      | 359(64.8) | 195(35.2) | 1.60(1.16-2.20)  | 0.004   |
| Marital Status                        | Single*                        | 67(58.8)  | 47(41.2)  | -                | -       |
|                                       | Married                        | 478(65.2) | 255(34.8) | 1.31(0.88-1.97)  | 0.183   |
|                                       | Divorced/Widowed               | 59(69.4)  | 26(30.6)  | 1.26(0.72-2.20)  | 0.411   |
|                                       | Cohabiting                     | 76(61.8)  | 47(38.2)  | 1.13(0.67-1.91)  | 0.635   |
| Partner has another wife              | No*                            | 140(68.7) | 38(21.3)  | -                | -       |
|                                       | Yes                            | 538(60.9) | 345(39.1) | 2.36(1.61-3.47)  | <0.001  |
| Number of Children                    | 0 to 1*                        | 182(56.5) | 140(43.5) | -                | -       |
|                                       | 2 to 4                         | 423(66.2) | 216(33.8) | 1.51(1.14-1.98)  | 0.003   |
|                                       | 5 and above                    | 79(73.8)  | 28(26.2)  | 2.17(1.34-3.52)  | 0.002   |
| Respondent's employment type          | Not employed*                  | 389(62.2) | 236(37.8) | -                | -       |
| · ·                                   | Self-employed                  | 214(67.5) | 103(32.5) | 1.09(0.73-1.63)  | 0.665   |
|                                       | Employed                       | 81(64.3)  | 45(35.7)  | 1.26(0.94-1.68)  | 0.112   |
| Partner or Ex-partner employment type | Casual*                        | 158(63.0) | 93(37.0)  | · -              | -       |
|                                       | Contract                       | 109(60.2) | 72(39.8)  | 1.17(0.70-1.95)  | 0.552   |
|                                       | Permanent                      | 59(59.3)  | 33(40.7)  | 1.04(0.61-1.76)  | 0.883   |
| Average household monthly income      | >15,000*                       | 185(63.1) | 108(36.9) | -                | -       |
|                                       | <15,000                        | 499(64.4) | 276(35.6) | 1.06(0.80-1.40)  | 0.705   |
| Takes alcohol                         | No*                            | 608(61.9) | 375(38.1) | -                | -       |
|                                       | Yes                            | 68(89.5)  | 8(10.5)   | 5.24(2.49-11.03) | <0.001  |
| Coping with Violence                  | No*                            | 580(62.7) | 345(37.3) | <u>-</u>         | -       |
|                                       | Yes                            | 104(72.7) | 39(27.3)  | 1.59(1.07-2.35)  | 0.021   |
| Partner takes alcohol                 | No*                            | 414(54.1) | 351(45.9) | -                | -       |
|                                       | Yes                            | 262(89.1) | 32(10.9)  | 6.94(4.68-10.29) | <0.001  |
| Sought help                           | No                             | 530(58.8) | 372(41.2) | -                | -       |
|                                       | Yes                            | 154(92.8) | 12(7.2)   | 9.01(4.93-16.45) | <0.001  |
| Access to water                       | No                             | 383(71.6) | 152(28.4) | -                | -       |
|                                       | Yes                            | 301(56.5) | 232(43.5) | 0.51(0.50-0.66)  | <0.001  |
| Access to toilet                      | No                             | 255(72.0) | 99(28.0)  | -                | -       |
|                                       | Yes                            | 429(60.1) | 285(39.9) | 0.58(0.44-0.77)  | < 0.001 |



# Discussion

This study examined the relationship between IPVE and recent IPV among women in Kibra ISs and the results cast a light on the intricate web of factors and the high prevalence of IPV in Kibra. The prevalence of IPV in Kibra ISs was 64%. This was similar to other IPV studies conducted in Kenya's urban ISs (8) illustrating a higher prevalence.

The study confirmed a significant association between women's and their

partner's IPVE and recent experiences of IPV. This observation is consistent with extant research, which suggests that individuals who witness or experience violence during their formative years are more likely to perpetrate or experience violence in adult relationships (18). The study thus gave credence to the possibility of intergenerational violence transmission (IGT) aligned with the social learning theory (SLT) (4).

**Table 6:** Multivariable Binary Logistic Regression

|   |                           | IPV       |           |                   |         |
|---|---------------------------|-----------|-----------|-------------------|---------|
|   | Variable                  | Yes n (%) | No n (%)  | AOR(95% CI)       | P-value |
| Respondent's Age                          | 15-24*                    | 149(56.7) | 114(43.3) | -                 | -       |
|   | 25-34                     | 327(65.9) | 169(34.1) | 1.27(0.76-2.12)   | 0.357   |
|   | 35 and above              | 208(67.3) | 101(32.7) | 0.78(0.38-1.58)   | 0.484   |
| Partner or ex-age                         | 15-24*                    | 55(57.9)  | 40(42.1)  | -                 | -       |
| ·   | 25-34                     | 249(57.2) | 186(42.8) | 0.70(0.37-1.31)   | 0.263   |
|   | 35 and above              | 380(70.6) | 158(29.4) | 1.00(0.45-2.23)   | 0.995   |
| Respondent's Level of Education           | College/TVET/University * | 65(50)    | 65(50)    | -                 | -       |
|   | Primary                   | 312(72.4) | 119(27.6) | 1.95(1.05-3.62)   | 0.035   |
|   | Secondary                 | 307(60.6) | 200(39.4) | 1.44(0.84-2.48)   | 0.189   |
| Partner or Ex Education,<br>Level         | College/TVET/University*  | 114(53.5) | 99(46.5)  | -                 | -       |
|   | Primary                   | 211(70.1) | 90(29.9)  | 1.50(0.86-2.62)   | 0.151   |
|   | Secondary                 | 359(64.8) | 195(35.2) | 1.32(0.84-2.09)   | 0.233   |
| Partner has another wife                  | No*                       | 140(68.7) | 38(21.3)  | -                 | -       |
|   | Yes                       | 538(60.9) | 345(39.1) | 1.46(0.89-2.41)   | 0.137   |
| Number of Children                        | 0 to 1*                   | 182(56.5) | 140(43.5) | -                 | -       |
|   | 2 to 4                    | 423(66.2) | 216(33.8) | 1.00(0.64-1.57)   | 0.999   |
|   | 5 and above               | 79(73.8)  | 28(26.2)  | 1.38(0.67-2.84)   | 0.376   |
| Access to primary water                   | No*                       | 383(71.6) | 152(28.4) | -                 | -       |
|   | Yes                       | 301(56.5) | 232(43.5) | 0.44(0.31-0.64)   | <0.001  |
| Access to toilet                          | No*                       | 255(72.0) | 99(28.0)  | -                 | -       |
|   | Yes                       | 429(60.1) | 285(39.9) | 0.57(0.37-0.88)   | 0.01    |
| Exposure to Inter-parental violence       | No*                       | 370(58.0) | 268(42.0) | -                 | -       |
|   | Yes                       | 314(73.0) | 116(27.0) | 2.27(1.56-3.29)   | <0.001  |
| Partner exposed to Interparental violence | No*                       | 504(60.9) | 324(39.1) | -                 | -       |
|   | Yes                       | 180(75.0) | 60(25.0)  | 1.59(1.01-2.48)   | 0.043   |
| Coping with Violence                      | No*                       | 580(62.7) | 345(37.3) | -                 | -       |
|   | Yes                       | 104(72.7) | 39(27.3)  | 1.03(0.62-1.71)   | 0.9     |
| Takes alcohol                             | No*                       | 608(61.9) | 375(38.1) | -                 | -       |
|   | Yes                       | 68(89.5)  | 8(10.5)   | 2.25(0.90-5.62)   | 0.081   |
| Partner takes alcohol                     | No*                       | 414(54.1) | 351(45.9) | <u>-</u>          | -       |
|   | Yes                       | 262(89.1) | 32(10.9)  | 5.35(3.39-8.45)   | <0.001  |
| Sought help                               | No*                       | 530(58.8) | 372(41.2) | -                 | -       |
|   | Yes                       | 154(92.8) | 12(7.2)   | 10.49(5.36-20.53) | <0.001  |



This has been affirmed by various studies across the globe that have provided empirical support for the theory (19).

The link between women's IPVE and their recent experiences of IPV is a critical aspect of understanding the dynamics of domestic violence (20). Typically, this exposure occurs when children learn violent aggression through observation. Witnessing inter-parental violence during childhood indicates that a young woman observed her parents, guardians, or other household adults engaging in IPV and how they reacted to issues within the family (4). This exposure can be traumatic because it creates an atmosphere of dread and instability normalises violent behaviour relationships (21). Significant effects of childhood exposure to IPV are hipped on women's perceptions of relationships and sense of self-worth. It can influence understanding of what behaviour is permissible in an intimate relationship. Women who have experienced IPVE during childhood may be more likely to accept violent behaviour from their partners as a normal aspect of a relationship (22). This can be aggravated by situations where the perpetrator unsanctioned, prompting the perception of violence as a normal way of life. This IGT is alarming, as it perpetuates a cycle of family maltreatment. It's also noteworthy that exposure to IPV in childhood frequently results in long-lasting emotional and psychological trauma (23). These mental health issues can make it more difficult to leave abusive relationships or seek assistance. Indeed, understanding the relationship women's childhood exposure to IPV and their recent experiences with IPV is essential for developing effective prevention and intervention strategies.

Notably, women whose childhood companions experienced IPV were more likely to experience it themselves. This is similar to findings that men exposed to inter-parental violence have high odds of reciprocating IPV in adulthood (24). This finding emphasises the

interconnected nature of family violence and the need to address the underlying causes of violent behaviour in both partners. The partner's exposure to IPV is a significant factor in women's experiences of IPV relationships. This relationship reveals a complex interaction between previous trauma and the likelihood of perpetrating experiencing IPV. In some instances, a partner's exposure to IPV can result in a dynamic of reciprocal violence, in which both partners indulge in violent behaviours within the relationship (25). Recognising the partner's history of trauma and its potential influence on their current behaviour is essential for providing effective aid.

Our study also discovered that women with a primary level of education were nearly twice as prone to IPV compared to their counterparts. This is similar to other studies that have demonstrated women with high levels of education are less likely to experience IPV (26) since they have lower odds of enduring IPV (27). In addition, male alcohol consumption was associated with an increased risk of IPV. Substance abuse, including alcohol abuse, has been associated with exacerbating violent tendencies and impaired judgement, resulting in a rise in IPV; alcohol consumption can exacerbate relationship conflicts (28). Women who sought assistance were likely to have experienced IPV in the recent past. This highlights the significance of readily available support services and community awareness of available resources through properly enacted channels. Encouraging women in abusive relationships to seek assistance is essential for preventing further violence and ensuring safety.

Interestingly, our study revealed that women who had access to primary water and toilet facilities in the last 24 hours were less likely to experience IPV compared to their counterparts. This conforms to previous studies that interventions of water and hygiene facilitation in resource-constrained settings improve relationships (29). In the urban ISs of Vanuatu, a man stopped physically harming his



wife after an improved water source meant she no longer needed his assistance to fetch water (30). Other interventions to improve water and sanitation access in rural Kitui, Kenya, reported improved relationships among households which had earlier experienced difficulties of irregular meal times and irritation due to lack of hygiene (31) which may cause low IPV rates.

This study provided valuable insights into factors contributing to recent IPV among women living in Kibra ISs. The findings highlighted the need for comprehensive, multifaceted interventions that target IPVE, alcohol abuse, seeking assistance, water and sanitation.

### Limitations

Overreliance on a quantitative cross-sectional design, which fails to establish causal relationships between independent and outcome variables. Women were also asked about their partner's exposure to IPVE and alcohol abuse. These responses may be subject to bias since it's a third-party response. Additionally, conducting assessments of IPV and related factors concurrently introduces potential recall bias, particularly in sensitive areas of personal concerns.

# Conclusion

This study examined the relationship between inter-parental violence exposure (IPVE) and recent intimate partner violence (IPV) among women in Kibra, highlighting a significant association. Women and their partners who had experienced IPVE during formative years had an increased likelihood of IPV in adult relationships, supporting the SLT and the IGT concept. On potential modifiers, the study also found that women with primary education were nearly twice as likely to experience IPV, emphasizing the protective role of higher education. Male alcohol consumption was associated with increased IPV risk, highlighting the need to address alcohol abuse. Women who sought assistance were more likely to have experienced recent IPV, underscoring the importance of accessible support services and community awareness. Access to water and toilet facilities was however linked to lower IPV rates, suggesting that improving water and sanitation can enhance household relationships. The findings call for comprehensive, multifaceted interventions targeting IPVE, alcohol abuse, support services, and water and sanitation improvements to reduce IPV in ISs.

# Recommendations

There is a need to develop a mechanism for identifying women and their partners exposed to inter-parental violence for effective intervention. Particularly, this can be fruitful with a focus on children or adults who have witnessed inter-parental violence to overcome trauma and challenges through counselling. Additionally, offering community-wide awareness programs that challenge IPVE and providing support for IPV survivors may limit domestic violence. Moreover, to effectively address IPV, a holistic approach like the provision of higher educational opportunities to women at tender ages, ensuring water and sanitation access to reduce turnaround time, addressing alcohol abuse and creating an enabling environment to facilitate impactful help-seeking behaviour may be sought. In addition, further research is required to investigate the subtleties of these associations and to develop more targeted interventions for this marginalised population.

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# **Author contribution**

- Stephen Ombija Principal investigator, conceptualization, proposal development, data analysis, and manuscript development.
- Prof. Tamarry Esho co-principal investigator, proposal and manuscript review.
- Prof Hesborn Wao co-principal investigator proposal and manuscript review.

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