

**PREVALENCE AND ASSOCIATED FACTORS OF  
INTIMATE PARTNER VIOLENCE AMONG  
PREGNANT WOMEN ATTENDING KISUMU  
DISTRICT HOSPITAL, KENYA-2010**

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# Introduction

- Intimate-partner violence (IPV) = Domestic violence (DV) domestic abuse or spouse abuse
- U. N definition
  - Acts (actual/threats) of gender based violence
  - Result in/likely to result in harm or suffering
    - Physical
    - Sexual
    - Psychological
  - Occurring in private or public life

# Introduction

- Global public health concern with serious health implications
  - Obstetric: Hemorrhage, abortions and pre-eclampsia
  - Mental health: Anxiety and depressive disorders
  - Pediatrics: preterm and underweight babies
  - Others: HIV
- Declared a public health priority by the 49th World Health Assembly in 1996

# Global

(WHO multi-country study, 2005)

- IPV in at least one pregnancy lowest 1% in Japan, and highest 28% in Peru
- IPV is the most common form of violence in women's lives

# Introduction

## Africa

- Prevalence from range 2%-57%
  - Nigeria: 2.3% (Fawole *et al.*, 2008)
  - Uganda: 57% (Kaye *et al.*, 2006)
  - Tanzania: 12% (WHO study, 2005)

## Kenya

- Study at KNH reported 9% prevalence in pregnancy (unpublished-Odula *et al.*, 2003)

# Justification

- Limited published data available on
  - Prevalence of IPV during pregnancy
  - Factors associated with IPV during pregnancy
- Interventions
  - Develop strategies and policies to guide new approaches to IPV in antenatal health services

# Study objective

- **Broad objective**
  - Determine prevalence and factors associated with IPV among pregnant women attending antenatal clinic at Kisumu District Hospital (KDH), Kenya
- **Specific objectives**
  - To determine prevalence of IPV
  - To determine factors associated with IPV
  - Characterize injuries resulting from physical violence

# Materials and Methods



- **Study design:** Cross-sectional facility based study
- **Study site:** Kisumu District Hospital
- **Study population:** Pregnant women seeking antenatal care at KDH

# Figure 1: Study site

Map of Africa showing Kenya

Map of Kenya showing  
Kisumu

Kisumu



# Sample size calculation:

$$n = z^2 pq / d^2 \quad (\text{Cochran, 1977})$$

$$n = 1.96^2 * 0.09 * 0.91 / 0.05^2$$

$$= 139 \quad (\text{minimum sample size})$$

- Assumptions:

- p: proportion of DV among pregnant women = 9%  
(Unpublished- Odula *et al.*, 2003)
- d: absolute precision(5%)
- z: 95% confidence level
- Non- response rate = 10%

- **Sampling:** Systematic random method
- **Inclusion criteria:** All consenting and assenting pregnant women attending antenatal clinic at KDH
- **Exclusion criteria:** Non-consenting and non assenting

# Data collection

- Used pretested, structured questionnaire
- Questionnaires administered face-to-face
- Data included:
  - i. Dependent variable: IPV experience
  - ii. Independent variables
    - Socio-demographic data
    - Others: HIV status, obstetric history
    - Male partner : age, educational status and alcohol intake
  - iii. Injuries sustained following physical violence

# Data management and analysis

- Entry, cleaning and analysis in Epi-info version 3.5.1
- Descriptive : means & proportions determined
- Odds ratio used to assess associations
- Chi square used to test statistical significance set at  $p < 0.05$
- Multiple logistic regression to determine independent factors

# Approval and ethical considerations

- Approved by Scientific Steering (SSC no. 1896) & Ethical Review Committees at KEMRI
- Board of Post graduate studies JKUAT
- Obtain informed written consent
- Ensured confidentiality

# Results



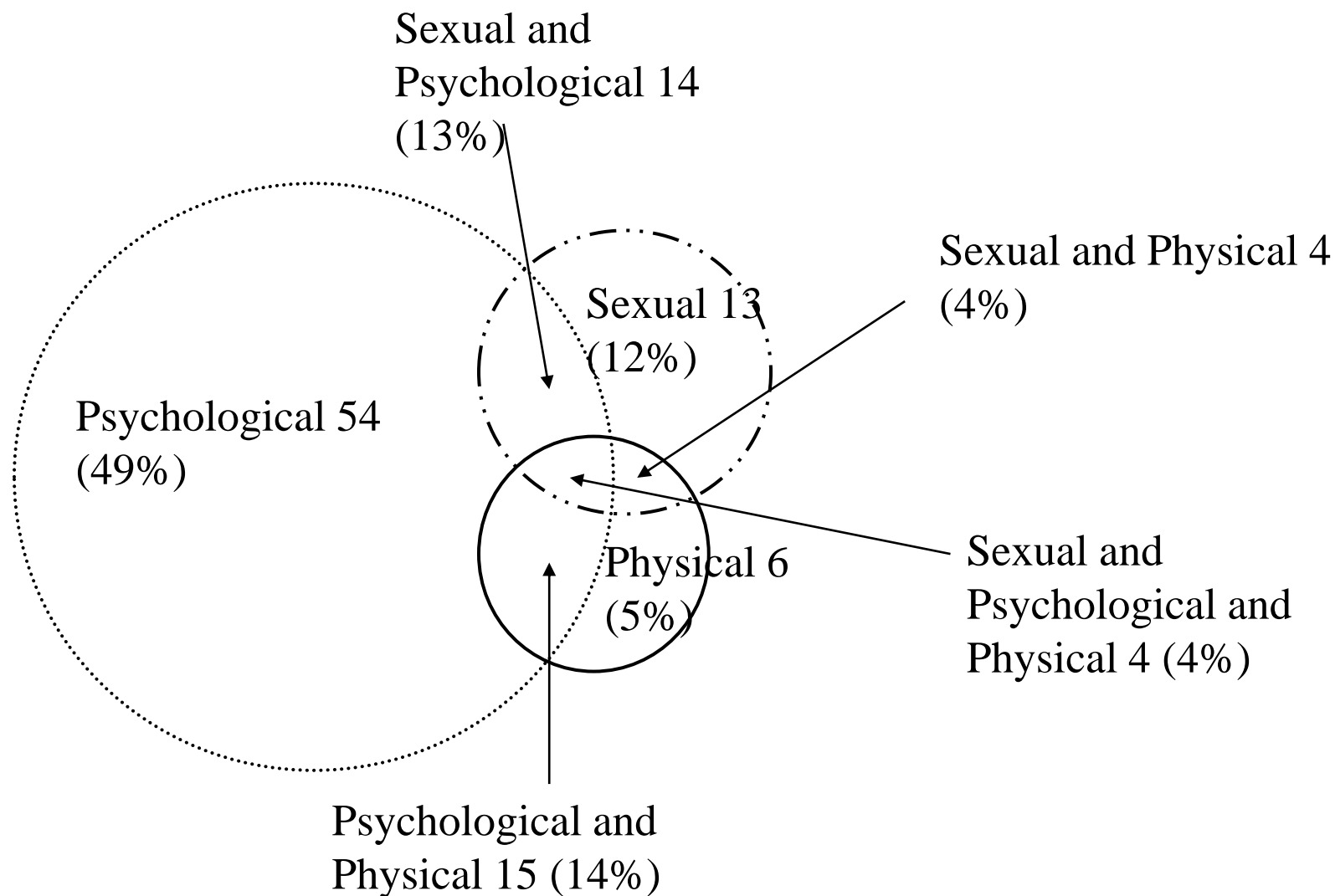
- **Participants characteristics**

- Participants interviewed were 300
- Response rate: 95%
- Mean age was 23.7 yrs ( $\pm 5$  SD)
- Ages ranged from 14 to 45 yrs
- Majority were
  - Married (80.7%)
  - Had primary school education (79.7%)
- Tested for HIV and willing to disclose status (n=285), 18% were HIV+

# Prevalence of different forms of violence during pregnancy

Form of violence	Frequency N=300	Percentage (%)
Overall violence in index pregnancy	110	36.7
Physical violence in index pregnancy	29	9.7
Sexual violence in index pregnancy	35	11.7
Psychological violence in index pregnancy	87	29

# Intersections between different forms of IPV during pregnancy (n=110)



# Bivariate analysis

Variable	Abused (%) N=110	Not Abused (%) N=190	P value	Crude OR (95% CI)
<b>Woman's age (in years)</b>				
25 and above	50 (45.5)	65 (34.2)	0.07076	1.60 (0.99-2.59)
Less than 25	60 (54.5)	125 (65.8)	ref	ref
<b>Marital status</b>				
Single	5 (4.5)	43 (22.6)	ref	ref
Currently/ever married	105 (95.5)	147 (77.4)	0.000077	6.14 (2.35-16.03)
<b>Occupation</b>				
House wife	50 (50.9)	65 (34.2)	0.07076	1.60 (0.99-2.59)
Others	60 (54.5)	125 (65.8)	ref	ref
<b>Family structure</b>				
Polygamous	25 (24.3)	17 (11.6)	0.001678	2.99 (1.53-5.84)
Monogamous	78 (75.7)	130 (88.4)	ref	ref
<b>No. of people per household</b>				
≤ 6	97 (88.2)	180 (94.7)	0.067	0.41 (0.16-1.05)
≥ 7	13 (11.8)	10 (5.3)	ref	ref
<b>Parity</b>				
Multipara	56 (50.9)	54 (28.4)	0.000163	2.61(1.6-4.26)
Others	54 (49.1)	136 (71.6)	ref	ref

# Bivariate analysis

Variable	Abused (%) N=110	Not Abused (%) N=190	P value	Crude OR (95% CI)
<b>Witnessed maternal abuse in childhood</b>				
Yes	27 (30.3)	22 (14.1)	0.004	2.65 (1.40-5.02)
No	62 (69.7)	134 (85.9)	ref	Ref
<b>Woman HIV status</b>				
Positive	24 (23.1)	27 (14.9)	0.082	1.71 (0.89-3.3)
Negative	80 (76.9)	154 (85.1)	ref	ref
<b>Alcohol intake by partner</b>				
Yes	56 (50.9)	64 (33.7)	0.005	2.04 (1.26-3.3)
No	54 (49.1)	126 (66.3)	ref	ref
<b>Partner's education</b>				
Tertiary	19 (17.3)	55 (29.1)	0.03	0.5 (0.28-0.91)
Secondary and below	91 (82.7)	135 (70.9)	ref	ref
<b>Partner's age</b>				
25 and above	93 (87.7)	131 (71.6)	0.003	2.84 (1.4-5.8)
< 25 years	13(12.3)	52 (28.4)	ref	ref
<b>Choice of partner</b>				
Both choosing	82 (74.5)	161 (84.7)	0.044	0.53 (0.29-0.95)
Third/one party's	28 (25.5)	29 (15.3)	ref	ref

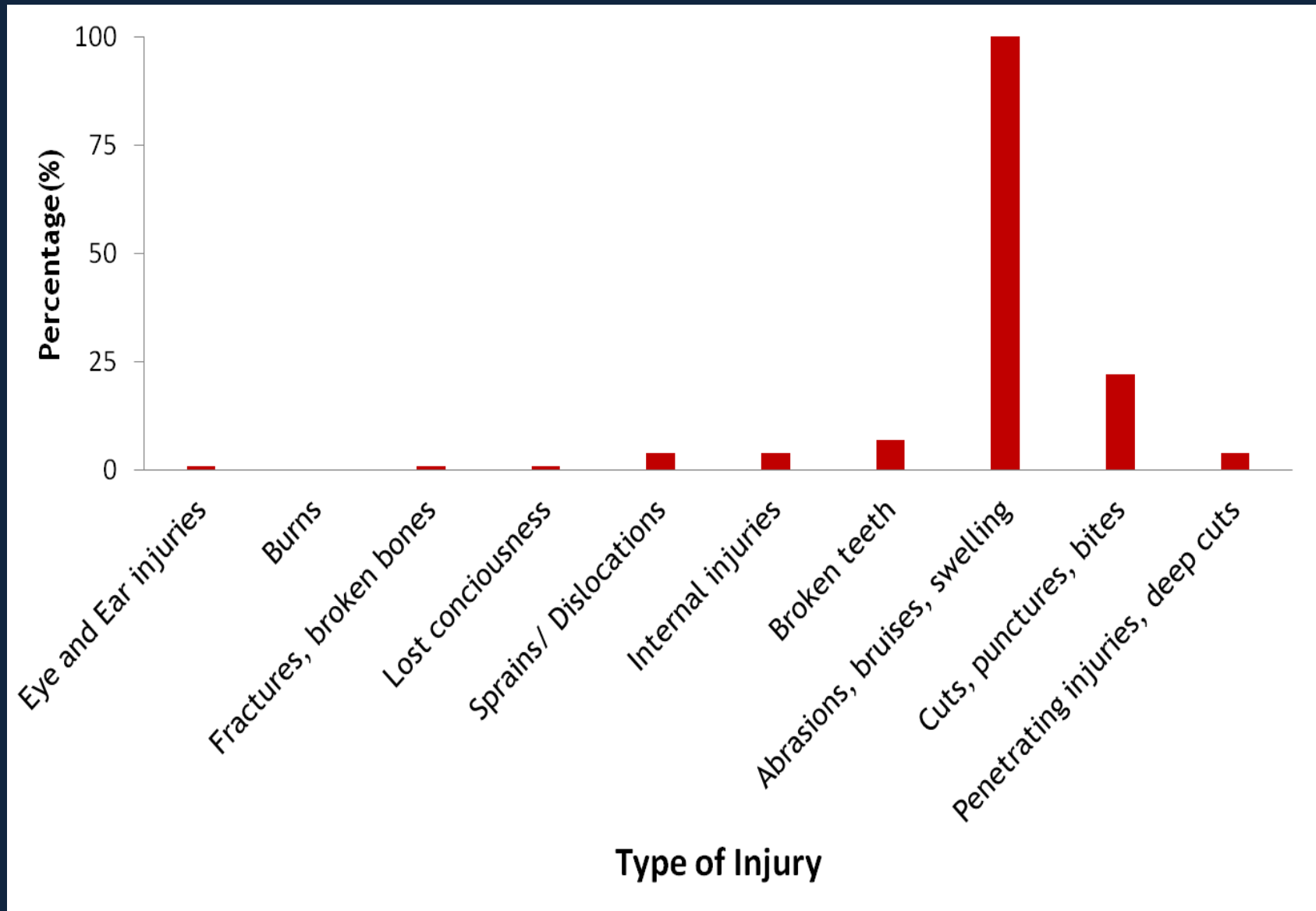
## Factors independently associated with DV during pregnancy – multivariate analysis

Independent variable	aOR	95% CI	p value
Witnessing maternal abuse in childhood	3.09	1.44-6.64	0.0038
Polygamy	2.52	1.27-5.01	0.0082
Multiparity	1.96	1.16-3.31	0.0119
Partner with tertiary education (higher than high school)	0.38	0.2-0.73	0.0035
Partner who drank alcohol	2.25	1.31-3.86	0.0033

# Injuries resulting from lifetime physical violence (n=78)

- Prevalence among physically-abused women: 94%
- Required medical attention: 33% (n=24), however 25% didn't go
- Didn't reveal real cause of injury to HCW: 56%
- Managed as in-patients: 50% (n=9)
- Ranking of injuries
  - 67 % mild
  - 21% moderate
  - 12% severe
- Per Vaginal bleeding or lost a pregnancy: 8%

# Injuries resulting from lifetime physical violence among pregnant women attending ANC at KDH, 2010 (n=73)





# Discussion

- Prevalence of IPV during pregnancy was 37%
- Higher than the 9% reported at KHN (Unpublished-Odula *et al.*, 2003)
- Differences are likely as a result of the
  - Types of violence
  - Differences in populations sampled
  - Points when assessment was administered
- Falls within the range of 2%-57% reported in African countries

- Psychological violence most common, then combination of physical & psychological
- Psychological violence is easier to perpetrate
- Intersections emphasize that different forms of DV don't occur in isolation

- Witnessed maternal abuse during childhood
  - Experienced as "normal" part of life
  - Contribute to low self-esteem & lack of autonomy  
(Durand *et al.*, 2007)
- Partner's alcohol consumption
  - Associated with household neglect and having multiple sexual partners (Weiser *et al.*, 2006)
  - Intentionally taken; "hide" behind it & engage in antisocial behaviors

- Polygamy
  - Neglect of one or more of spouses
  - Result in jealousy and tension and thus fuel DV
- Multiparity
  - May in part demonstrate lack of autonomy in decisions regarding reproduction
- Partners education inversely associated with DV
  - Source of information
  - Change agent for social norms

# Injuries resulting from physical violence

- Prevalence of injury among ever physically-abused women: 94%
- Majority sustained soft tissue injuries
  - Similar to New Zealand and WHO study (Fanslow and Robinson, 2011; WHO, 2005)
- 44% of ever-injured & treated revealed real cause of injury
  - Could be due to shame and stigma

# Study limitations

- Cross sectional in design, results cannot be used to assume causality
- Misclassification: Deliberate misreporting may affect the accuracy of the self-reported data
- Recall bias
- Selection bias
  - Recruitment point
  - Selective survival

# Conclusion

- High prevalence: 4/10 suffered IPV in pregnancy
- Factors associated with IPV in pregnancy:
  - Witnessing maternal abuse in childhood
  - Multiparity
  - Polygamy
  - Partner who took alcohol or had low education
- A third sustained moderate to severe injuries



# Recommendations

- Institute public awareness campaigns
- Screening for IPV as integral part of routine ANC
- Health care providers
  - Identification
  - Optimal care
  - Linking survivors with appropriate services

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**Thank you**