

Intimate partner violence and age disparity in Sub-Saharan Africa

Fanuel Otieno - Student at SACEMA.

Roxanne Beauclair - Researcher/Study Coordinator, SACEMA.

Wim Delva - Epidemiologist, SACEMA and Ghent University, Belgium.

Intimate partner violence (IPV) is a public health problem that has drawn considerable research attention over the last few decades. The resulting body of research has yielded much information regarding the risk factors associated with IPV including age disparity (1). Age disparity (AD) refers to the age difference between sexual partners (typically calculated as male partner's age minus the female's age). Studies that have looked at age disparity as a risk factor of IPV show conflicting results regarding the direction of the association. For instance, a study that considered 10 Demographic and Health Surveys (DHS) data sets showed that a woman having a partner at least 5 years older is less likely to experience IPV in Zambia (2). Three other studies showed having an older partner is protective against IPV (3-5). However, other studies indicated that women in a relationship with an older partner may be more likely to experience IPV compared to women in relationships with men of the same age (6-10). It is due to these conflicting results that we sought to investigate if having an older partner is protective against IPV, compared to having a partner of closer age, in Sub-Saharan Africa using data from DHS (11).

We considered 21 countries from Sub-Saharan Africa for which DHS rounds took place between 2008 and 2014. We

used four indicators of IPV (emotional violence, less severe violence, severe violence, and sexual violence) as outcome variables and age differences as independent variable. Specifically, we fitted a modified Poisson regression model to estimate the relative risk (RR) of a woman experiencing IPV, in the 12 months before the survey, if she was more than two years younger than her partner. Women in the reference group (referred to as having a partner of closer age) were not more than two years older or younger than their partners. We then conducted a meta-analysis across all countries, weighted by country-specific population, to find out the average RR of a woman experiencing each type of IPV.

All weighted relative risk averages from the meta-analysis were less than 1. For larger AD, the relative risk ranges from 0.845 to 0.984 and significantly different from 1 for “less severe violence”. These averages mask large between country heterogeneities. In some countries (for example, Burkina Faso, Ghana, and Nigeria) having a partner more than two years older has a strong negative correlation with IPV, for emotional violence and “less severe violence” IPV indicators. Generally, we see mixed pictures for most of the countries across all the indicators of IPV as shown in the figures below.

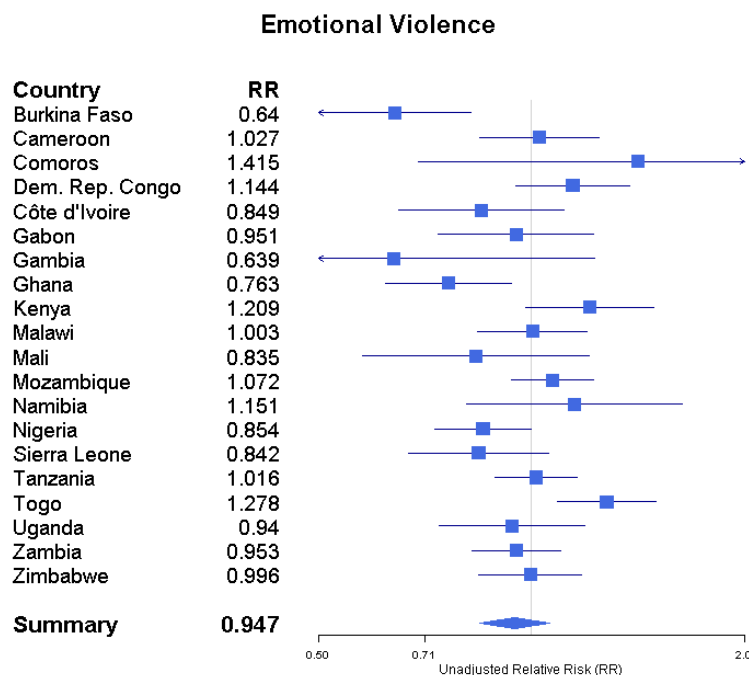


Figure 1: Forest plot showing results of studies examining the association of age disparity and emotional violence. The arrows indicate RR and/or confidence intervals not captured in the plot.

Less Severe Violence

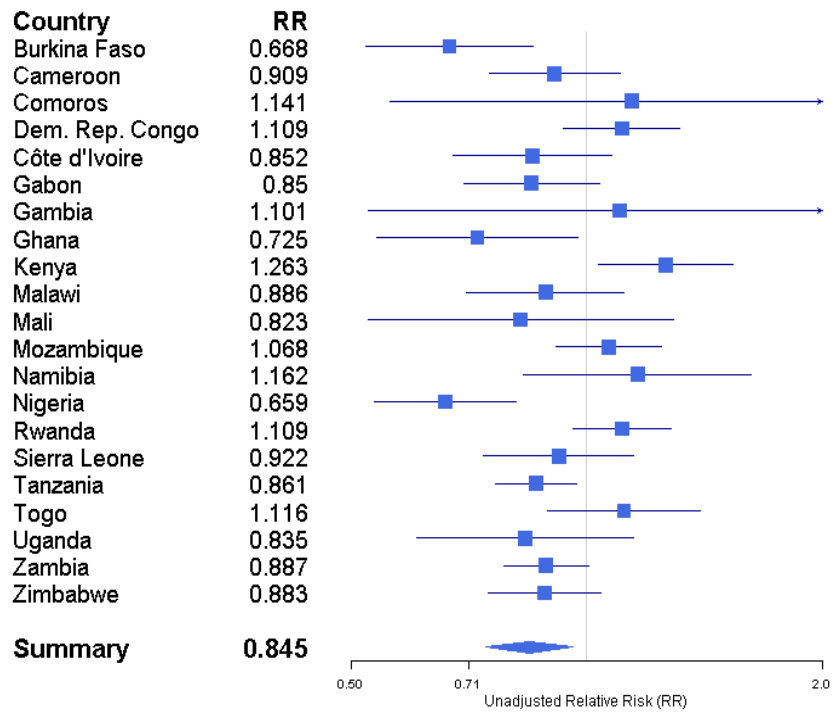


Figure 2: Forest plot showing results of studies examining the association of age disparity and “less severe violence”.

Severe Violence

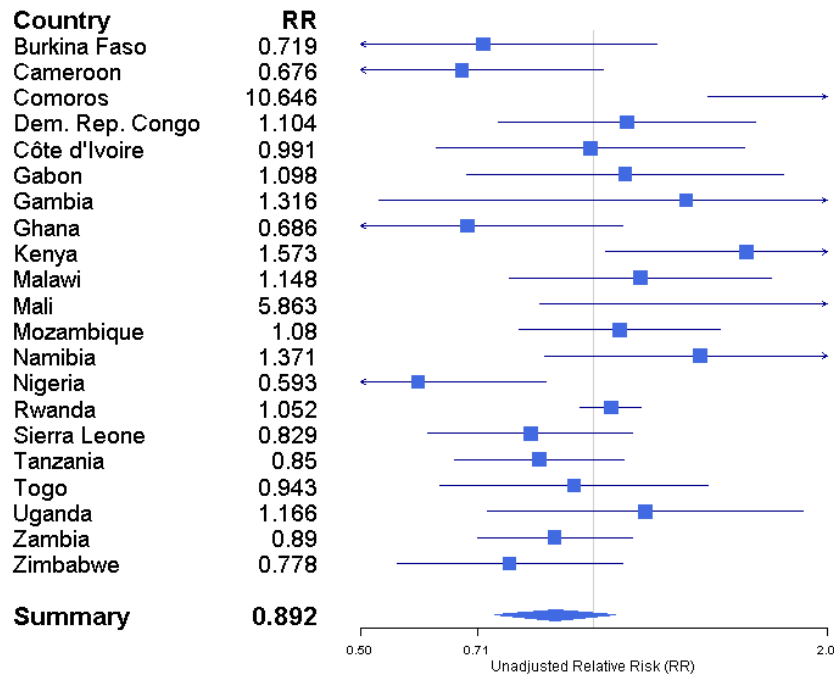


Figure 3: Forest plot showing results of studies examining the association of age disparity and severe violence.

Sexual Violence

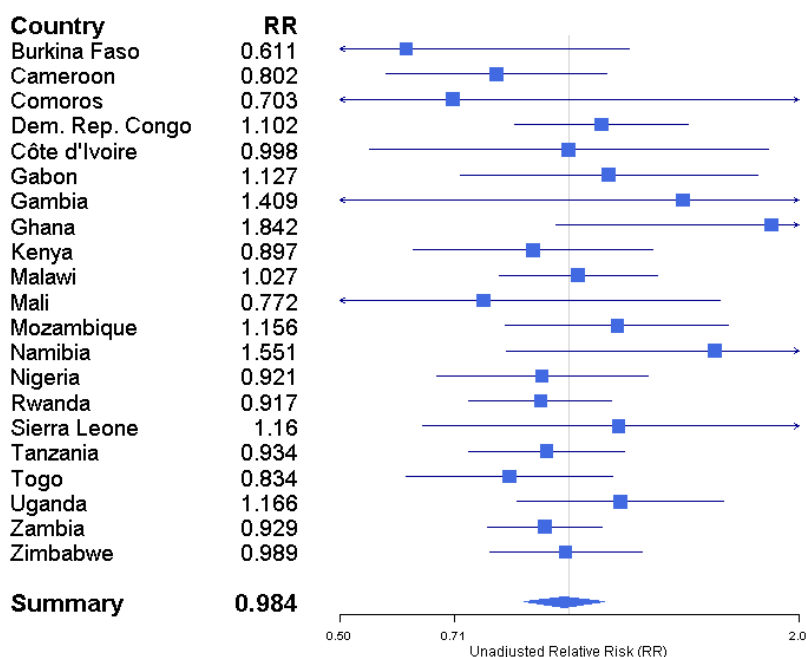


Figure 4: Forest plot showing results of studies examining the association of age disparity and sexual violence.

All weighted relative risk averages that came out of the meta-analyses were less than one, which is consistent with the hypothesis that having an older partner is a protective factor against IPV, and in line with the study (2), which showed having a male partner at least 5 years older is protective against IPV in Zambia. These results are also in line with the study (3), which showed that male partners 4 or more years older than the woman were less likely to have ever perpetrated violence.

This study adds to the body of evidence about the association of IPV and age disparity in Sub-Saharan Africa. However, our ability to give a meaningful interpretation to the average relative risk estimates is limited because of the high degree of heterogeneity and the need to analyse this heterogeneity. Moreover, there is a need for an expanded model in which relative risks are adjusted for covariates such as age of the woman, education level, alcohol consumption, and employment.

A further limitation is that social desirability bias when answering sensitive questions (in particular about sexual violence) and attenuation bias (due to imprecise estimation of partner age) may be present, and may have led to loss of statistical power and regression dilution (underestimation of true effect)(12).

Despite these limitations, this study shows a negative association between IPV and age disparity, and the association varies from one country to the other. Therefore, programmes designed to curb IPV should be country dependent when considering age disparity as a risk factor of intimate partner violence.

Fanuel Otieno - Student at SACEMA. Areas of interest: Age mixing and sexual transmission of HIV. fanuel@aims.ac.za

Roxanne Beauclair - Researcher/Study Coordinator, SACEMA. Areas of interest: infectious diseases, HIV, social epidemiology, sexual networks. roxanne.beauclair@gmail.com

Wim Delva - Epidemiologist, SACEMA and Ghent University, Belgium. Areas of interest: statistical analysis of sexual behaviour data, stochastic and deterministic modelling of sexual network dynamics and HIV transmission. Wim.Delva@ugent.be

References:

1. Johnson WL, Giordano PC, Manning WD, Longmore MA. The Age-IPV Curve: Changes in the Perpetration of Intimate Partner Violence During Adolescence and Young Adulthood. *J Youth Adolesc.* 2014;44(3):708-726.
2. Hindin MJ, Kishor S, Ansara DL. Intimate partner violence among couples in 10 DHS countries: Predictors and health outcomes. DHS Analytical Studies No. 18. Claverton: Macro International Inc.; 2008.
3. Luke N, Schuler SR, Mai BT, Vu Thien P, Ninh TH. Exploring couple attributes and attitudes and marital violence in Vietnam. *Violence Against Women.* 2007;13(1):5-27.
4. Coker AL, Smith PH, McKeown RE, King MJ. Frequency and correlates of intimate partner violence by type: Physical, sexual, and psychological battering. *Am J Public Health.* 2000;90(4):553-559.
5. Parish WL, Wang T, Laumann EO, Pan S, Luo Y. Intimate partner violence in China: National prevalence, risk factors and associated health problems. *Int Fam Plan Perspect.* 2004;30(4):174-181.

6. Jewkes R, Dunkle K, Nduna M, et al. Factors associated with HIV sero-status in young rural South African women: Connections between intimate partner violence and HIV. *Int J Epidemiol.* 2006;35(6):1461–1468.
7. Abramsky T, Watts CH, Garcia-Moreno C, et al. What factors are associated with recent intimate partner violence? findings from the WHO multi-country study on women's health and domestic violence. *BMC Public Health.* 2011;11(1):109.
8. Hindin MJ, Adair LS. Who's at risk? Factors associated with intimate partner violence in the Philippines. *Soc Sci Med.* 2002;55(8):1385–1399.
9. Tobergte DR, Curtis S. Profiling domestic violence: A multi-country study. *J Chem Inf Model.* 2013;53(9):1689–1699.
10. Zablotska B, Gray RH, Koenig MA, et al. Alcohol use, intimate partner violence, sexual coercion and HIV among women aged 15-24 in Rakai, Uganda. *AIDS Behav.* 2009;13(2):225–233.
11. Short Fabic M, Choi Y, Bird S. A systematic review of Demographic and Health Surveys: data availability and utilization for research. *Bull World Health Organ.* 2012;90(8):604–612.
12. Boerma JT, Sommerfelt AE. Demographic and health surveys (DHS): contributions and limitations. *World Heal Stat Q.* 1993;46(4):222–226.