

# The Effect of Combining Business Training, Microfinance, and Support Group Participation on Economic Status and Intimate Partner Violence in an Unplanned Settlement of Nairobi, Kenya

Show less

Clea C. Sarnquist, DrPH, MPH , Linda Ouma, BSc, Nickson Lang'at, MSc, Chrisanthus Lubanga, MA, Jake Sinclair, MD, Michael T. Baiocchi, PhD, David N. Cornfield, M

<https://doi.org/10.1177/0886260518779067>

Article information



## Article Information

Volume: 36 issue: 7-8, page(s): 3903-3921

Article first published online: June 4, 2018; Issue published: April 1, 2021

 Clea C. Sarnquist, DrPH, MPH<sup>1</sup>, Linda Ouma, BSc<sup>2</sup>, Nickson Lang'at, MSc<sup>2</sup>, Chrisanthus Lubanga, MA<sup>2</sup>, Jake Sinclair, MD<sup>2</sup>, Michael T. Baiocchi, PhD<sup>1</sup>, David N. Cornfield, MD<sup>1</sup>

<sup>1</sup>Stanford University, USA

<sup>2</sup>UJAMAA Africa, Kenya

Corresponding Author:

Clea C. Sarnquist, Department of Pediatrics, School of Medicine, Stanford University, Grant S005, Stanford, CA 94305, USA. Email: [cleas@stanford.edu](mailto:cleas@stanford.edu)

PMID: 29862883

## Abstract

Intimate partner violence (IPV) has myriad negative health and economic consequences for women and families. We hypothesized that empowering women through a combination of formal business training, microfinance, and IPV support groups would decrease IPV and improve women's economic status. The study included adult female survivors of severe IPV. Women living in Korogocho received the intervention and women in Dandora served as a standard of care (SOC) group, but received the intervention at the end of the follow-up period. Women in the intervention groups ( $n = 82$ , SOC group,  $n = 81$ ) received 8 weeks of business training, assistance creating a business plan, a small initial loan (about US\$60), and weekly business and social support meetings. The two primary outcome measures included change in: (a) average daily profit margin, and (b) incidence of severe IPV. Exploratory analysis also looked at incidence of violence against children and women's self-efficacy. Average daily profit margin in the intervention group increased by 351 Kenyan Shillings (about US\$3.5) daily (95% CI = [172, 485]). IPV directed against participating women decreased from a baseline of 2.1 to

0.26 incidents, a difference of 1.84 incidents (95% CI = [1.32, 2.36]). Violence against children in the household in the prior 3 months decreased from 1.1 to 0.55 incidents, a difference of 0.55 incidents (95% CI = [0.16, 1.03]). Finally, the intervention appears to have increased self-efficacy scores by 0.42 points (95% CIs 0.13, 0.71). In a low-resource urban environment, employing three complementary interventions resulted in higher daily profit margins and lower IPV in the intervention compared with the SOC group. These data support the notion that employing multiple interventions concomitantly might possess synergistic, beneficial effects, and hold promise to address profound poverty and interrupt the devastating cycle of IPV.

## Keywords

[domestic violence](#), [child abuse](#), [sexual assault](#), [prevention of child abuse](#), [prevention](#)

## References

Banerjee, A., Duflo, E., Goldberg, N., Karlan, D., Osei, R., Parienté, W., . . . Udry, C. (2015). A multifaceted program causes lasting progress for the very poor: Evidence from six countries. *Science*, 348(6236), Article 1260799. doi:[10.1126/science.1260799](https://doi.org/10.1126/science.1260799)

[Google Scholar](#) | [Crossref](#)

---

Bornstein, R. (2006). The complex relationship between dependency and domestic violence. *American Psychologist*, 61, 595-606.

[Google Scholar](#) | [Crossref](#) | [Medline](#) | [ISI](#)

---

Bourey, C., Williams, W., Bernstein, E. E., Stephenson, R. (2015). Systematic review of structural interventions for intimate partner violence in low- and middle-income countries: Organizing evidence for prevention. *BMC Public Health*, 15(1), Article 1165.

doi:[10.1186/s12889-015-2460-4](https://doi.org/10.1186/s12889-015-2460-4)

[Google Scholar](#) | [Crossref](#) | [Medline](#)

---

Campbell, J. C. (2002). Health consequences of intimate partner violence. *The Lancet*, 359, 1331-1336.

[Google Scholar](#) | [Crossref](#) | [Medline](#) | [ISI](#)

---

Centers for Disease Control and Prevention . (2003). Costs of intimate partner violence against women in the United States. Atlanta, GA. Retrieved

from <https://www.cdc.gov/violenceprevention/pdf/IPVBook-a.pdf>

[Google Scholar](#)

---

Dhungel, S., Dhungel, P., Dhital, S. R., Stock, C. (2017). Is economic dependence on the husband a risk factor for intimate partner violence against female factory workers in Nepal? *BMC Women's Health*, 17(1), Article 82. doi:[10.1186/s12905-017-0441-8](https://doi.org/10.1186/s12905-017-0441-8)  
[Google Scholar](#) | [Crossref](#) | [Medline](#)

---

Ellsberg, M., Jansen, H. A. F. M., Heise, L., Watts, C. H., Garcia-Moreno, C. (2008). Intimate partner violence and women's physical and mental health in the WHO multi-country study on women's health and domestic violence: An observational study. *The Lancet*, 371, 1165-1172. doi:[10.1016/S0140-6736\(08\)60522-X](https://doi.org/10.1016/S0140-6736(08)60522-X)  
[Google Scholar](#) | [Crossref](#) | [Medline](#) | [ISI](#)

---

Emina, J., Beguy, D., Zulu, E. M., Ezeh, A. C., Muindi, K., Elung'ata, P., . . . Yé, Y. (2011). Monitoring of health and demographic outcomes in poor urban settlements: Evidence from the Nairobi Urban Health and Demographic Surveillance System. *Journal of Urban Health*, 88, 200-218. doi:[10.1007/s11524-011-9594-1](https://doi.org/10.1007/s11524-011-9594-1)  
[Google Scholar](#) | [Crossref](#) | [ISI](#)

---

García-Moreno, C., Jansen, H. A., Ellsberg, M., Heise, L., Watts, C. H. (2006). Prevalence of intimate partner violence: Findings from the WHO multi-country study on women's health and domestic violence. *The Lancet*, 368, 1260-1269.

[Google Scholar](#) | [Crossref](#) | [Medline](#) | [ISI](#)

---

Gibbs, A., Willan, S., Misselhorn, A., Mangoma, J. (2012). Combined structural interventions for gender equality and livelihood security: A critical review of the evidence from Southern and Eastern Africa and the implications for young people. *Journal of the International AIDS Society*, 15(3, Suppl. 1), Article 17362. doi:[10.7448/IAS.15.3.17362](https://doi.org/10.7448/IAS.15.3.17362)  
[Google Scholar](#) | [Crossref](#) | [Medline](#)

---

Green, E. P., Blattman, C., Jamison, J., Annan, J. (2015). Women's entrepreneurship and intimate partner violence: A cluster randomized trial of microenterprise assistance and partner participation in post-conflict Uganda (SSM-D-14-01580R1). *Social Science & Medicine*, 133, 177-188.

[Google Scholar](#) | [Crossref](#) | [Medline](#)

---

Gupta, J., Falb, K. L., Lehmann, H., Kpebo, D., Xuan, Z., Hossain, M., . . . Annan, J. (2013). Gender norms and economic empowerment intervention to reduce intimate partner violence against women in rural Côte d'Ivoire: A randomized controlled pilot study. *BMC*

International Health and Human Rights, 13(1), Article 46.

[Google Scholar](#) | [Crossref](#) | [Medline](#)

---

Heise, L. L. (1998). Violence against women: An integrated, ecological framework. *Violence against Women*, 4, 262-290. doi:[10.1177/1077801298004003002](https://doi.org/10.1177/1077801298004003002)

[Google Scholar](#) | [SAGE Journals](#)

---

Heise, L. L., Kotsadam, A. (2015). Cross-national and multilevel correlates of partner violence: An analysis of data from population-based surveys. *The Lancet Global Health*, 3, e332-e340. doi:[10.1016/S2214-109X\(15\)00013-3](https://doi.org/10.1016/S2214-109X(15)00013-3)

[Google Scholar](#) | [Crossref](#) | [Medline](#) | [ISI](#)

---

Hernán, M., Robins, J. (2006). Estimating causal effects from epidemiological data. *Journal of Epidemiology and Community Health*, 60, 578-586.

[Google Scholar](#) | [Crossref](#) | [Medline](#) | [ISI](#)

---

Hunter, M. (2010). Love in the time of AIDS: Inequality, gender, and rights in South Africa. Durban, South Africa: University of KwaZulu-Natal Press.

[Google Scholar](#)

---

Jan, S., Ferrari, G., Watts, C. H., Hargreaves, J. R., Kim, J. C., Phetla, G., . . . Pronyk, P. M. (2011). Economic evaluation of a combined microfinance and gender training intervention for the prevention of intimate partner violence in rural South Africa. *Health Policy and Planning*, 26, 366-372.

[Google Scholar](#) | [Crossref](#) | [Medline](#) | [ISI](#)

---

Jewkes, R. (2015). SHARE: A milestone in joint programming for HIV and intimate partner violence. *The Lancet Global Health*, 3, e2-e3. doi:[10.1016/S2214-109X\(14\)70374-2](https://doi.org/10.1016/S2214-109X(14)70374-2)

[Google Scholar](#) | [Crossref](#) | [Medline](#)

---

Jewkes, R., Gibbs, A., Jama-Shai, N., Willan, S., Misselhorn, A., Mbatha, N., . . . Sikweyiya, Y. (2014). Stepping stones and creating futures intervention: Shortened interrupted time series evaluation of a behavioural and structural health promotion and violence prevention intervention for young people in informal settlements in Durban, South Africa. *BMC Public Health*, 14, Article 1325. doi:[10.1186/1471-2458-14-1325](https://doi.org/10.1186/1471-2458-14-1325)

[Google Scholar](#) | [Crossref](#)

---

Jewkes, R., Nduna, M., Levin, J., Jama, N., Dunkle, K., Puren, A., Duvvury, N. (2008). Impact of stepping stones on incidence of HIV and HSV-2 and sexual behaviour in rural South Africa: Cluster randomised controlled trial. British Medical Journal, 337, Article a506. doi:[10.1136/bmj.a506](https://doi.org/10.1136/bmj.a506)

[Google Scholar](#) | [Crossref](#) | [Medline](#)

---

Kenya National Bureau of Statistics . (2017). Population distribution by sex, number of households, area and density by County and District. Retrieved from <https://www.knbs.or.ke/publications/>

[Google Scholar](#)

---

Kenya National Bureau of Statistics & ICF Macro . (2016). Kenya demographic and health survey 2014. Retrieved from <https://dhsprogram.com/pubs/pdf/FR308/FR308.pdf>

[Google Scholar](#)

---

Kim, J. C., Ferrari, G., Abramsky, T., Watts, C., Hargreaves, J., Morison, L., Pronyk, P. (2009). Assessing the incremental effects of combining economic and health interventions: The IMAGE study in South Africa. Bulletin of the World Health Organization, 87, 824-832.

[Google Scholar](#) | [Crossref](#) | [Medline](#) | [ISI](#)

---

Kim, J. C., Watts, C. H., Hargreaves, J. R., Ndhlovu, L. X., Phetla, G., Morison, L. A., . . . Pronyk, P. (2007). Understanding the impact of a microfinance-based intervention on women's empowerment and the reduction of intimate partner violence in South Africa. American Journal of Public Health, 97, 1794-1802.

[Google Scholar](#) | [Crossref](#) | [Medline](#) | [ISI](#)

---

Matzopoulos, R., Bowman, B., Butchart, A., Mercy, J. A. (2008). The impact of violence on health in low- to middle-income countries. International Journal of Injury Control and Safety Promotion, 15, 177-187. doi:[10.1080/17457300802396487](https://doi.org/10.1080/17457300802396487)

[Google Scholar](#) | [Crossref](#) | [Medline](#) | [ISI](#)

---

Max, W., Rice, D., Finkelstein, E., Bardwell, R., Leadbetter, S. (2004). The economic toll of intimate partner violence against women in the United States. Violence Vict, 19, 259-272.

[Google Scholar](#) | [Crossref](#) | [Medline](#)

---

Nanda, P. (1999). Women's participation in rural credit programmes in Bangladesh and their demand for formal health care: Is there a positive impact?. Health Economics, 8, 415-428. doi:[10.1002/\(SICI\)1099-1050\(199908\)8:5<415::AID-HEC450>3.0.CO;2-L](https://doi.org/10.1002/(SICI)1099-1050(199908)8:5<415::AID-HEC450>3.0.CO;2-L)

[Google Scholar](#) | [Crossref](#) | [Medline](#)

---

Pronyk, P. M., Hargreaves, J. R., Kim, J. C., Morison, L. A., Phetla, G., Watts, C., . . .  
Porter, J. D. (2006). Effect of a structural intervention for the prevention of intimate-partner violence and HIV in rural South Africa: A cluster randomised trial. *The Lancet*, 368, 1973-1983.

[Google Scholar](#) | [Crossref](#) | [Medline](#) | [ISI](#)

---

R Core Team . (2015). R: A language and environment for statistical computing. Retrieved from <https://www.R-project.org>

[Google Scholar](#)

---

UN Women . (2014, October). Facts and figures: Ending violence against women. Retrieved from <http://www.unwomen.org/en/what-we-do/ending-violence-against-women/facts-and-figures#sthash.CtW0guF8.dpuf>

[Google Scholar](#)

---

World Bank Group . (2015). Global poverty line update. Retrieved from <http://www.worldbank.org/en/topic/poverty/brief/global-poverty-line-faq>

[Google Scholar](#)

---

World Health Organization . (2013). Global and regional estimates of violence against women: Prevalence and health effects of intimate partner violence and non-partner sexual violence. Geneva, Switzerland. Retrieved from [http://apps.who.int/iris/bitstream/handle/10665/85239/9789241564625\\_eng.pdf;jsessionid=F52BB340CB418E4DDCC0C0E3C2F0DAD?sequence=1](http://apps.who.int/iris/bitstream/handle/10665/85239/9789241564625_eng.pdf;jsessionid=F52BB340CB418E4DDCC0C0E3C2F0DAD?sequence=1)

[Google Scholar](#)

---

Zhao, H., Seibert, S. E., Hills, G. E. (2005). The mediating role of self-efficacy in the development of entrepreneurial intentions. *Journal of Applied Psychology*, 90, 1265-1272.

[Google Scholar](#) | [Crossref](#) | [Medline](#) | [ISI](#)

---

Ziraba, A. K., Madise, N., Mills, S., Kyobutungi, C., Ezeh, A. (2009). Maternal mortality in the informal settlements of Nairobi city: What do we know? *Reproductive Health*, 6(1), Article 6. doi:[10.1186/1742-4755-6-6](https://doi.org/10.1186/1742-4755-6-6)

[Google Scholar](#) | [Crossref](#) | [Medline](#)