INTRODUCTION

Intimate partner violence (IPV) is widespread globally, with an estimated one-third of women aged 15 years and over experiencing physical and/or sexual violence at the hands of an intimate partner during their lifetimes.\textsuperscript{(1)} Economic empowerment, or the financial standing of women, is often thought to protect against IPV, signalling sufficient economic autonomy to leave abusive situations or to prevent abuse.\textsuperscript{(2)} Asset ownership is one measure of economic empowerment, and can convey substantial agency as a wealth store, especially for large productive assets, such as agricultural land\textsuperscript{(3)} or home ownership.\textsuperscript{(4)} However, women’s increased economic empowerment may increase the risk of IPV, if men use violence to obtain resources from women, or in settings in which women’s financial autonomy may be seen to challenge customary norms, whereby men may use IPV to assert dominance.\textsuperscript{(5)}

Despite the important implications of IPV reduction for policy and programming, evidence of this relationship is scarce. In a recent global multi-level analysis, structural factors such as laws and practices that promote women’s property ownership at the country level, protected against IPV.\textsuperscript{(6)} Yet the association between women’s asset ownership and IPV at the micro-level (i.e. at the individual woman/couple level) remains unclear, as findings to date come from geographically limited, cross-sectional studies with small sample sizes, which makes it hard to draw conclusions or to generalize findings to other settings.

What do we know from studies linking women’s asset ownership to IPV at the micro-level?

Panda and Agarwal (2005) were the first to show how women’s house and land ownership protect women from physical and psychological IPV in Kerala, India.\textsuperscript{(7)} More recent studies have found similar protective associations for at least some IPV measures and different types of assets: Northern India (house; physical IPV), Nicaragua and Tanzania (land; physical and psychological IPV), Ecuador (financial and physical assets; physical IPV) and Ghana (financial and physical assets; emotional IPV).\textsuperscript{(8)-(10)}

To learn more about this relationship, in a recent study, we used nationally representative data from 28 countries to explore women’s house and/or land ownership and reported experience of IPV in the past 12 months. To our knowledge, this is the first study that provides comparative results on this relationship across several countries. One of the study’s strengths is its use of population-based data, which allows for greater generalization of the findings. In addition, we used quasi-experimental methods, which go beyond estimating simple correlations and instead attempt to account for inherent bias in the estimated relationship in an effort to strengthen conclusions regarding causality of the observed relationships.

STUDY DESIGN

Data for this analysis came from nationally representative Demographic and Health Surveys (DHSs), collected between 2010 and 2014. All selected surveys included information on women’s experiences of IPV and asset ownership, taken from a new module implemented as of 2010. The sample included 164,986 women aged 15 to 49 years from 28 countries – two countries from East Asia and the Pacific, one country from Europe and Central Asia, two countries from the Middle East and North Africa, three countries from Latin American and the Caribbean, two countries from South and Southeast Asia, and 18 countries from Sub-Saharan Africa (SSA).

We used 12-month measures for experience of IPV, in the forms of 1) physical and/or sexual violence, and 2) emotional violence, perpetrated by the current or last husband or partner. We used indicators of individual land and house ownership (combined and disaggregated) reported by each woman and tested associations with IPV for sole ownership, joint ownership (in conjunction with another
household member) and combined measures. We ran multivariate probit regression models for each country, and controlled for demographic characteristics, including age, schooling, marital status, household size, urban residence, and region. Because women’s asset ownership is likely to be correlated with household wealth, we used a matching method (coarsened exact matching) to create weights to account for the confounding relationship with household wealth in the estimated relationship between asset ownership and IPV risk.\(^{(11)}\)

**RESULTS**

**Prevalence of IPV and asset ownership**

Approximately 20% of women reported experiencing physical and/or sexual IPV in the past 12 months (ranging from 5% in Comoros to 44% in Rwanda). On average, 50% of women owned assets either solely or jointly (ranging from 6% in Egypt to 86% in Rwanda), and 21% owned assets solely only (ranging from 3% in Egypt to 67% in Comoros). On average across countries, more women reported owning houses than land.

**Associations between IPV and any asset ownership**

Figure 1 shows the overall results from associations between physical and/or sexual IPV in the prior 12 months and women’s asset ownership from the weighted probit regression models. The blue triangles denote marginal effects (and standard errors in bars) for any asset ownership (house and/or land combined); red circles denote marginal effects (and standard errors) for sole asset ownership; and a solid fill denotes statistical significance at the p<0.10 or higher. Overall and by region, we did not find specific patterns of women’s asset ownership and experience of IPV. At the country level, however, women who owned assets (whether solely or jointly) in three countries (Democratic Republic of the Congo, Honduras and Pakistan) were less likely to report 12-month IPV compared to women who did not own assets in these countries. In contrast, those who

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**Figure 1: Percentage Point Changes in Physical or Sexual Intimate Partner Violence (or Both) in the Previous 12 Months Associated with Women’s Asset Ownership from Weighted Probit Regressions from 28 Demographic and Health Surveys: 2010–2014**

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Note. DRC = Democratic Republic of the Congo. Value of marginal effect denoted by circle or triangle (with SE bounds). Solid point estimates represent statistical significance (at the P < .10 level). Unfilled point estimates represent insignificant relationships. Data from ever-partnered women aged 15–49 years from nationally representative Demographic and Health Surveys. All models adjusted for background characteristics (see Peterman et al. 2017, for further details).
OWNED ASSETS IN FIVE COUNTRIES (BURKINA FASO, EGYPT, JORDAN, MALI AND NEPAL) WERE MORE LIKELY TO REPORT EXPERIENCE OF 12-MONTH IPV.

SENSITIVITY ANALYSIS
We conducted a number of sensitivity analyses to attempt to unpack these initial, disparate results. However, when we disaggregated by asset type, examining land and house ownership separately, the findings showed similar inconclusive patterns: for example, women who owned land were less likely to report experience of IPV in five countries (Cambodia, Nigeria, Sierra Leone, Tanzania and Zambia), but more likely to report IPV in four countries (Cote d’Ivoire, Dominican Republic, Egypt and the Kyrgyz Republic). In addition, we examined rural-only samples (as productive assets including land are likely to be more relevant in agricultural households), samples of younger women (aged 15 to 24), who may have brought assets into marriage, and thus face different initial dynamics in partnerships, and samples of women who lived in communities with higher than 50% incidence of women’s asset ownership (who are less likely to directly challenge gendered-norms around women’s property ownership, compared to communities where fewer than 50% of women report any asset ownership). In no case did we find more conclusive patterns across countries.

CONCLUSION
Our results suggest that the relationship between asset ownership and experience of IPV varies by asset type and setting. One conclusion is that programmes and policies may need to be tailored to specific contexts. Another conclusion is that better data and methodologies are needed to account for confounding factors in the observed relationship between women’s asset ownership and IPV risk. We recommend that future research focus on identifying causality in the relationship between women’s assets and IPV through longitudinal study designs, rather than continuing to rely on cross-sectional estimates. Rigorous evaluations of asset transfer programmes and panel data to track changes in ownership of diverse assets, asset values and gendered asset gaps, are needed to understand if women’s assets protect against IPV. Women’s empowerment has potential to play a key role in progress towards reducing IPV and meeting the Sustainable Development Goal 5.2. We hope this research will advance our global understanding of this potential.

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