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The Effect of Cash, Vouchers and Food Transfers on Intimate Partner Violence: Evidence from a Randomized Experiment in Northern Ecuador

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Introduction

- Multi-country studies on intimate partner violence (IPV) show that one in three women globally have experienced physical and/or sexual violence during their lifetime (Devries et al. 2013; WHO 2013).
- In Ecuador, lifetime prevalence of IPV is estimated at 35% for physical violence, 14.5% for sexual violence, and 43.4% for psychological violence (INEC 2011).
- Despite large body of evidence on detrimental effects of IPV, we still lack robust, rigorous evidence from developing countries around what works to prevent IPV—particularly those linked to women’s economic empowerment (Heise 2012).
- Poverty targeted cash transfers have been proposed as a promising instrument to reduce IPV, however body of evidence is mixed.

IPV in Economic Theory

- In economic theory, IPV is modeled using household bargaining models, which depend on resources, threat points and outside opportunities.

In these models, IPV is either:

- **Expressive:** Used to improve aggressor's self-esteem or release frustration >> ↑ in women's income = ↓ IPV
- **Extractive:** Used to extract rents from the victim or her family >> ↑ in women's income = ↑ IPV
- **Instrumental:** Used to control the victim's behavior or control the allocation of resources within the household >> ↑ in women's income = ? IPV
- **Combination of Instrumental and expressive** >> ↑ in women's income = ? IPV

Evidence from Cash Transfer Programs

- **Peru's *Junto's*** decreases physical and emotional IPV by 9 and 11 pps – concentrated among women who have fewer children, cash paying jobs and history of no exposure to IPV (Perova 2010).
- **Ecuador's *Bono Desarrollo Humano*** decreases emotional IPV and controlling behaviors by 8 and 14 pps for women with higher education, however increase emotional IPV by 9 pps for women with less education and partners with similar or lower education (Hidrobo & Fernald 2013).
- **Mexico's *Oportunidades*** decreases physical IPV by 5-7 pps, however increases violent threats, concentrated among women with education; however effects dissipate after 5 years (Bobonis and Castro, 2010; Bobonis et al. 2013).

Study objectives

1. Provide evidence on impact of transfers on IPV
2. Investigate whether impact varies by modality (cash, vouchers, food)
3. Investigate whether impact varies by woman's baseline bargaining power

Contributions to the literature:

- Randomized control design with panel data on IPV
- Different transfer modalities may have different behavioral responses – thus gaining insight into mechanisms and theories on IPV
- Collect direct measures of bargaining power (women's decisionmaking)

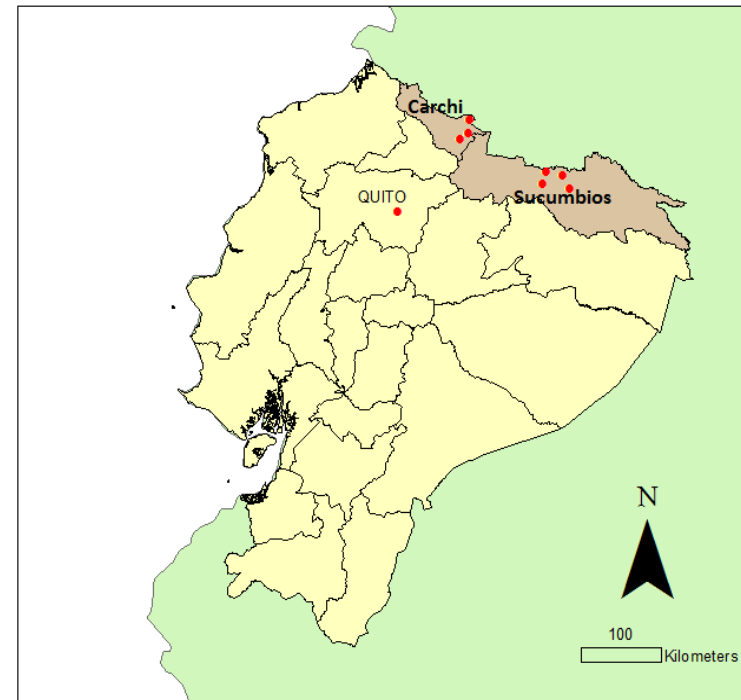
The Intervention: Objectives

- WFP had three objectives:
 - Improve food consumption by facilitating access to more nutritious foods.
 - Increase the role of women in household decision-making related to food consumption.
 - Reduce tensions between Colombian refugees and host Ecuadorian populations.



The Intervention

- Targeting:
 - Colombian refugees and poor Ecuadorians
 - 7 urban centers in Carchi (highland) and Sucumbíos (lowland)
 - Targeted to women (76%)
- 6 monthly transfers of \$40:
 1. Food: Rice, oil, lentils, canned sardines
 2. Vouchers: Redeemable for the purchase of approved foods at supermarket
 3. Cash: Preprogrammed ATM cards
- Conditional on nutrition training





Study design: Sampling and randomization

- 2 stage randomization:
 - Neighborhoods randomly assigned to treatment or comparison;
 - Within treatment neighborhoods, clusters randomized to food, cash or voucher.

- 80 neighborhoods and 145 clusters randomized into four intervention arms. Sampled 21-25 households per cluster.

- The baseline sample had 2,357 households of whom 2,122 were re-surveyed at follow-up.

Data

- Baseline survey was conducted in March-April 2011 before the first transfers were distributed.
- The endline survey was in October-November 2011 after the last transfer.
- Analysis sample is panel of households with one woman aged 15 to 69 at baseline in a partnership in the last 6 months, available to be administered IPV module over panel: 1,231.
- Attrition analysis shows there are few significant differences between treatment and control (and treatment arms).

Indicators: IPV and bargaining power

- IPV data collection following WHO protocol, modified Conflict Tactics Scale (18 questions).
- 5 IPV measures (last 6 months):
 1. Controlling behaviors
 2. Emotional violence
 3. Moderate physical violence
 4. Severe physical violence
 5. Any physical or sexual violence
- Decisionmaking variables following DHS (“who has the final say across 8 domains).
- “High DM” if woman answers sole or joint decisionmaking involvement across all applicable.

Empirical Specification

- Analysis of Covariance (ANCOVA) models and linear probability models (LPM) with standard errors corrected for clustering:

$$Y_{ij1} = \alpha + \beta_T \text{Treat}_j + \gamma Y_{ij0} + \delta P_{ij} + \varepsilon_{ij}$$

- Y_{ij1} = IPV outcome of interest at follow-up
- Y_{ij0} = IPV outcome of interest at baseline
- Treat = Received transfer
- P_{ij} = Province of residence
- Vector of covariates (woman's age, partner's age, woman's education, partner's education, born in Colombia, marital status, indigenous or Afro Ecuadorian, labor force participation, high sole or joint decisionmaking power, number of children 0–5 years old in HH, number of children 6–15 years old in HH, wealth, and province of residence)

Baseline descriptives of outcomes and covariates by treatment status

	All	Control	Treatment	P-value of diff.
Born in Colombia	0.36	0.39	0.34	0.40
Age	34.77	35.19	34.60	0.46
Some secondary education or higher	0.39	0.38	0.39	0.86
Married	0.42	0.41	0.43	0.77
Indigenous	0.04	0.03	0.04	0.54
Afro-Ecuadorian	0.07	0.06	0.07	0.67
Worked in the last 6 months	0.32	0.30	0.33	0.49
High sole or joint decisionmaking	0.46	0.51	0.44	0.16
Partner has some secondary education or higher	0.38	0.36	0.39	0.45
Partner's age	38.61	39.14	38.40	0.37
Household size	4.34	4.55	4.26	0.01
Household number of children 0-5 years	0.75	0.72	0.76	0.52
Household number of children 6-15 years	1.00	1.13	0.94	0.02
Asset index	0.44	0.69	0.34	0.10
Male household head	0.98	0.97	0.98	0.51
Baseline controlling	0.17	0.17	0.17	0.82
Baseline emotional	0.26	0.25	0.27	0.43
Baseline moderate physical violence	0.14	0.11	0.15	0.04
Baseline severe physical violence	0.07	0.06	0.07	0.56
Baseline physical and or sexual	0.16	0.13	0.18	0.06

Results: Pooled transfer (with covariates)

N = 1,224	Controlling behaviors	Emotional IPV	Moderate physical IPV	Severe physical IPV	Physical or sexual IPV
Pooled Treatment	-0.07 (0.03)**	-0.04 (0.03)	-0.06 (0.03)**	-0.02 (0.02)	-0.07 (0.03)*
Constant	0.49 (0.08)***	0.25 (0.07)***	0.22 (0.06)***	0.14 (0.06)**	0.23 (0.07)***
R ²	0.11	0.14	0.11	0.12	0.14

ANCOVA LPM models. Standard errors in parenthesis clustered at the cluster level. * $p < 0.1$ ** $p < 0.05$; *** $p < 0.01$; All estimations control for women characteristics, partner characteristics and household characteristics and contain province fixed effects.

- No significant differences in pairwise tests between coefficients on modality specific analysis.

Results: Heterogeneous impacts by women's baseline decisionmaking power

N = 1,224	Controlling behaviors	Emotional IPV	Moderate physical IPV	Severe physical IPV	Physical or sexual IPV
Pooled Treatment	-0.11 (0.04)**	-0.08 (0.05)*	-0.12 (0.04)***	-0.07 (0.03)**	-0.13 (0.05)***
Pooled Treatment X High sole or joint DM	0.09 (0.06)	0.08 (0.05)	0.13 (0.05)***	0.09 (0.03)**	0.13 (0.05)**
High sole or joint DM	-0.08 (0.05)	-0.10 (0.04)**	-0.11 (0.04)***	-0.08 (0.03)***	-0.12 (0.04)***
R ²	0.11	0.15	0.12	0.12	0.14

ANCOVA LPM models. Standard errors in parenthesis clustered at the cluster level. * $p < 0.1$ ** $p < 0.05$; *** $p < 0.01$; All estimations control for women characteristics, partner characteristics and household characteristics and contain province fixed effects.

Summary of Findings

- Transfers decrease the probability that a woman experiences controlling behaviors, moderate physical, and any physical/sexual violence by 6 to 8 percentage points.
- Effects do not vary by transfer modality, suggesting transfers are not being forcefully extracted.
- Program impacts are concentrated among woman with low sole or joint decisionmaking power at baseline. Transfers are most effective at realizing impacts among women who initially face larger power dynamic gaps.
- Promising findings, however are short-term measures and in a select population of urban poor living in Northern Ecuador, with a high percentage of Colombian born nationals.

Research and program implications

- CT and other poverty related programs have potential for positive spillover effects on intrahousehold outcomes— however dynamics will differ by type of program.
- Close attention to heterogeneous groups within programs and how these may modify impacts.
- Qualitative work to understand casual mechanisms behind impacts (fieldwork completed in Ecuador and analysis ongoing).
- Need for more impact evaluations in diverse settings over long term – both CTs and other economic empowering interventions. RCTs and other quasi-experimental work is needed beyond associations.

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Results: Treatment modality (with covariates)

N = 1,224	Controlling behaviors	Emotional IPV	Moderate physical IPV	Severe physical IPV	Physical or sexual IPV
Treatment==Food	-0.06 (0.05)	-0.05 (0.04)	-0.07 (0.03)**	-0.03 (0.03)	-0.08 (0.04)**
Treatment==Cash	-0.08 (0.04)**	-0.05 (0.04)	-0.06 (0.03)*	-0.01 (0.03)	-0.06 (0.04)
Treatment==Voucher	-0.06 (0.04)*	-0.03 (0.04)	-0.06 (0.03)*	-0.03 (0.03)	-0.06 (0.04)*
R ²	0.11	0.14	0.12	0.12	0.14
P-value: Food=Voucher	0.98	0.60	0.68	0.76	0.56
P-value: Cash=Voucher	0.62	0.49	0.87	0.39	0.78
P-value: Food=Cash	0.72	0.94	0.56	0.58	0.42

ANCOVA LPM models. Standard errors in parenthesis clustered at the cluster level. * $p < 0.1$ ** $p < 0.05$; *** $p < 0.01$; All estimations control for women characteristics, partner characteristics and household characteristics and contain province fixed effects.