

New Longitudinal Evidence on Domestic Violence in Brazil: the PCSVDF^{Mulher} Project and its Potential for Interdisciplinary Research

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UNIVERSIDADE
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MINISTÉRIO DA
MULHER, DA FAMÍLIA E
DOS DIREITOS HUMANOS



Pervasiveness, Inequality and Costs

- Gender inequality is pervasive, “against women and transgenders”, global and multidimensional (health access, political & economic empowerment and participation, victimization and so on) (UNDP (2016), Forum (2018) and UN (2019))
- The most striking dimension of gender inequality is domestic violence (DV) and its impacts on women’s health, empowerment & labor market and their children development
- High prevalence of lifetime gender-based violence: 30% - 60% (physical), indeed, that violence is severe and frequent (Garcia-Moreno et al. (2006) and Bott et al. (2019))
- DV cost estimates per year are considerable: i) UK (2008), £15.73 million (Walby (2009)), ii) USA (2012), US\$ 3.6 trillion (Peterson et al. (2018)), iii) Ecuador (2003 - 2004), US\$109 million (Roldos and Corso (2013)), and iv) Brazil (2004), 1.2 % of GDP (lost productivity) - **Interpersonal Violence**, US\$ 21 billion (Butchart et al. (2007))

Human Rights, Public Health and Socioeconomic Problem

Domestic and Family Violence against Women (DFVW) continues to be a major issue

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- Human Rights denial
- Long-term serious health consequences
- Significant social, economic and public health costs
- Obstacle to sustainable development
- Negative intergenerational externalities

Prevalence, Paradox and Lack of Data & Tools

- In the last 10 - 15 years, Brazil has experienced a sharp increase in the number of homicides ($\simeq 40\%$) and female homicides ($\simeq 30\%$) (IPEA (2019))
- Brazil, in the 1st decade of the new millennium, has made significant progress both economically and socially, however, violence increased dramatically (Sapori (2012))
- Researchers and policymakers find several difficulties to understand such social phenomena: lack of rigorous measurement, adequate data, tools and instruments are main obstacles

Domestic and Family Violence against Women (DFVW) Gaps

- Need ongoing DFVW surveillance using uniform definitions and survey methods
- Need more frequent nationally and sub-nationally (state level) representative data, measured consistently over time, to monitor trends
- Need micro longitudinal data at the individual and household levels with improved quality, more detail than previous surveys to increase understanding of the nature, context, severity, and consequences of DFVW
- Need to collect victimization data, since the “dark figure” in formal reporting is 7% (all countries), and ranged from 2% to 14% in developing countries (Palermo et al. (2013))

The “Dark Figure” of DFVW in Brazil’s Northeast

Table 1: Percentange of DFVW Acts Reported to the Police/DEAM

| City | 2016 | 2017 |
|------------------|-----------------------|-----------------------|
| Aracaju / SE | 18.97 (10.29 - 31.81) | 27.54 (17.79 - 39.81) |
| Fortaleza / CE | 25.00 (15.87 - 36.84) | 20.69 (14.6 - 28.37) |
| Joao Pessoa / PB | 22.34 (14.66 - 32.33) | 10.81 (5.12 - 20.72) |
| Maceio / AL | 18.18 (9.52 - 31.35) | 16.67 (8.7 - 28.98) |
| Natal / RN | 19.64 (10.67 - 32.84) | 20.34 (11.39 - 33.2) |
| Recife / PE | 25.00 (14.81 - 38.65) | 14.44 (8.22 - 23.8) |
| Salvador / BA | 32.95 (23.52 - 43.89) | 24.55 (17.06 - 33.84) |
| Sao Luis / MA | 23.81 (12.59 - 39.8) | 17.65 (9.83 - 29.19) |
| Teresina / PI | 27.08 (15.74 - 42.09) | 15.38 (7.34 - 28.63) |

Source: Elaborated by the Authors with PCSVDF^{Mulher} Evidence

General Objective

PCSVDF^{Mulher} (Survey of Socioeconomic Conditions and Domestic and Family Violence against Women):

- To build a unique dataset that enables the surveillance and the study of domestic and gender violence, the allocation of resources in the household, female labor market, women's and children's health, and child development
- To promote a deeper comprehension on how to reduce domestic violence through public policies carefully designed, implemented and evaluated, guided by cutting edge epidemiological, statistical and econometric procedures

Three Pillars of PCSVDF^{Mulher}

- An innovative and rigorous methodology based on the best longitudinal international studies on victimization and household surveys
- An interdisciplinary approach based mainly on Public Health, Economics, Sociology and Criminology
- The institutional support provided by key players in the agenda on Gender Inequality and Development:
 - Secretariat of Policies for Women/Ministry of Women, Family and Human Rights
 - The *Maria da Penha Institute*
 - The World Bank
 - The UNPD
 - UN Women

Interdisciplinarity

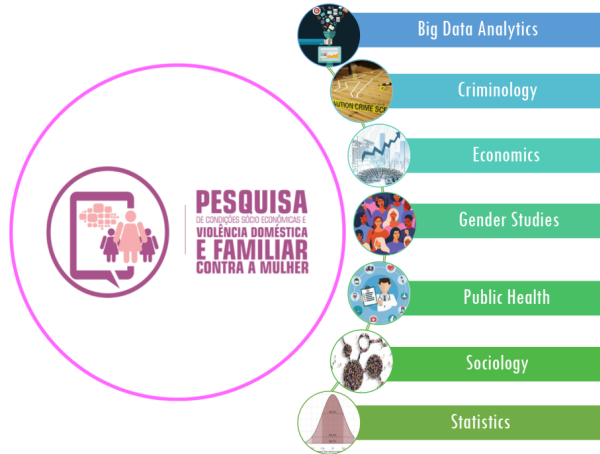


Figure 1: Multidisciplinary Background

A Triple Match: Science, Activism and Public Policy



Figure 2: Triple Match

The PCSVDF^{Mulher} Initial Research Group

- Jose Raimundo CARVALHO - CAEN/UFC and LECO/CAEN, Brazil (Principal Investigator and Research Study Coordinator)
- Heidi COLLERAN - Institute for Advanced Study in Toulouse, France
- Thierry MAGNAC - University of Toulouse, France
- Miriam MULLER - World Bank, USA
- Elizaveta PEROVA - World Bank, USA
- Victor Hugo de OLIVEIRA - IPECE, UNIFOR and LECO/CAEN, Brazil
- Climent QUINTANA-DOMEQUE - University of Oxford, United Kingdom
- Eva RAIBER - University of Toulouse, France
- Paul SEABRIGHT - Institute for Advanced Study in Toulouse, France
- Jonathan STIEGLITZ - Institute for Advanced Study in Toulouse, France

The PCSVDF^{Mulher} Additional Researchers

- Sonia BHALOTRA - University of Warwick (Economics & Gender), United Kingdom
- Abel BRASIL - EBSE/CE and LECO/CAEN (Statistics and Data Science), Brazil
- Hilda COSTA - UFC (Psychology), Brazil
- Diego ANDRÉ - UFRN and LECO/CAEN (Economics), Brazil
- Antônio FREIRE Jr - UECE (Public Health), Brazil
- Wânia PASINATO - Consultant (Sociology), Brazil
- Thiago PIEROBOM - MPDFT & UniCeub (Law and Crime), Brazil
- Joseph VECCI - University of Gothenburg (Economics), Sweden
- Mércia SANTOS - UFPB and LECO/CAEN (Economics), Brazil
- Conceição DE MARIA - Instituto Maria da Penha (Gender Studies & Policy Implementation), Brazil

The PCSVDF^{Mulher} Financial Sources

- The PCSVDF^{Mulher} project was financed with a budget from the *Secretariat of Policies for Women/Ministry of Women, Family and Human Rights*
- The project received the due approval from the Brazilian Scientific Ethical Committee:
 - Approval Number: 53690816.5.0000.5054 (Waves 1 and 2)
 - Approval Number: 20237519.0.0000.5054 (Wave 3)
- Along its way, it also received accessory financial support from IAST, France and the World Bank, Washington

The PCSVDF *Mulher* Questionnaire

- S1.** HOUSEHOLD APPROACH AND WOMAN SELECTION
- S2.** SOCIOECONOMIC PROFILE AND LABOR MARKET
- S3.** WOMAN'S QUESTIONNAIRE (WQ) - GENERAL AND REPRODUCTIVE HEALTH
- S4.** NORMS, AWARENESS/KNOWLEDGE ABOUT VIOLENCE AGAINST WOMEN AND THE "MARIA DA PENHA LAW"
- S5.** THE INTERVIEWEE AND HER PARTNER
- S6.** BARGAIN AND EMPOWERMENT
- S7.** DOMESTIC VIOLENCE EXPERIENCES (CURRENT PARTNER, EX-PARTNER (LATEST) OR ANY OTHER EX-PARTNER)
- S8.** NON-PARTNER-RELATED VIOLENCE EXPERIENCES
- S9.** ACCESS AND USE OF THE WOMAN'S CARE NETWORK
- S10.** MATCH EVALUATION
- S11.** SUBJECTIVE EXPECTATIONS
- S12.** SUPPLEMENTARY SECTION
- S13.** RESULT

The PCSVDF^{Mulher} Survey Methodological Inspiration

- We employ a methodology based on the best international studies on victimization, household surveys, and gender violence
- Gender violence questions and interview protocols are based on the "Multi-country Study on Women's Health and Domestic Violence against Women" of World Health Organization - WHO, 2005
- As to the protocol of application of the questionnaire, we have to adapt and improve WHO's protocol without losing methodological rigor

Sample Design I

- Quantitative, probabilistic and longitudinal by design
- The first two waves (2016 and 2017) of 10,000 respondents each, representative of Brazilian women living in Northeastern capitals, $age \in [15, 50]$
- The Northeast region represents 18% of Brazilian territory (1,558,196 km^2), population of 53.6 million people, 27.8% of the total population of the country
- The third wave (2019) with roughly 9,000 respondents is still ongoing and includes 7 states' capitals, representing all regions of Brazil, $age \in [15, 60]$
- Survey firm hired (public bid)
 - Attested experience in household and victimization survey data collection
 - DataInfo - www.datainfopesquisas.com.br/
- Interviewers use CAPI technology - World Bank's **Survey Solution** software
 - Automated all survey process
 - Improved data quality

Sample Design II

- The sample unit is a resident woman in a selected household
- Sampling plan was drawn up by stratifying the population in three stages accordingly to the following:
 - First stage: selection of a sample of census tracts at each capital following a design that creates three layers of sectors according to the head of household's income
 - Second stage: selection of a sample of households at each of the sectors previously selected
 - Third stage: random selection of a woman, $age \in [15, 50)$, in each household
- DataInfo employed a list of home addresses and census tracts which are available from the Brazilian national bureau of statistics (IBGE)

Waves 1 & 2 (2016 e 2017)

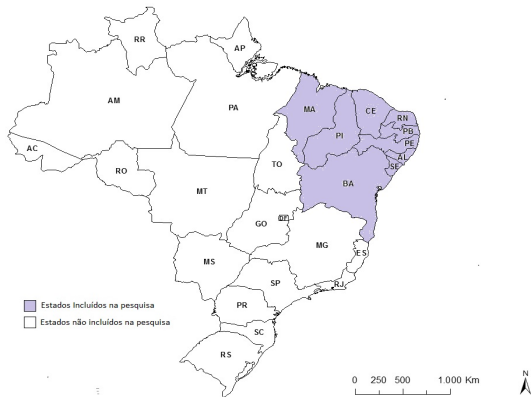


Figure 3: Sampled Areas *PCSVDF^{mulher}* - 2016 e 2017

Wave 3 (2019)

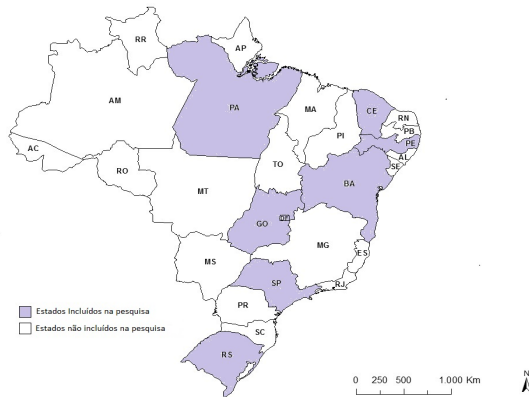


Figure 4: Sampled Areas *PCSVDF^{mulher}* - 2019

Waves 4, 5 & 6 (2020, 2021 e 2022)

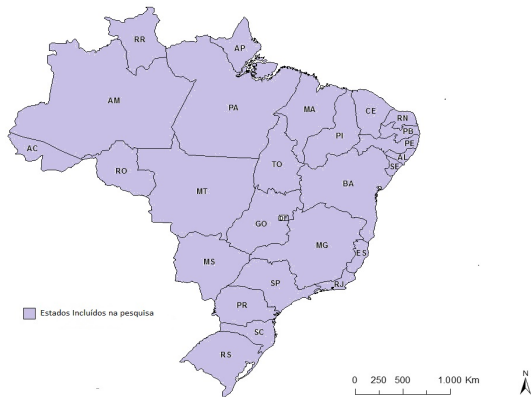


Figure 5: To Be Sampled Areas $PCSVDF^{mulher}$ - 2020, 2021 e 2022

Sample Design IV

Table 2: Planned Sample Size - Wave 1

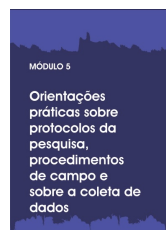
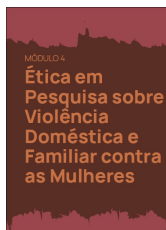
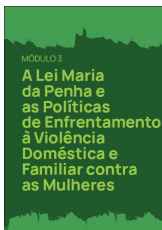
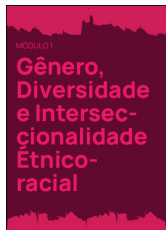
| State | Capital | Women ≥ 16 | Sample size | Error |
|---------------------|-------------|-----------------|-------------|----------|
| Bahia | Salvador | 1,132,133 | 1,100 | 3.0 p.p. |
| Ceará | Fortaleza | 1,008,016 | 1,100 | 3.0 p.p. |
| Pernambuco | Recife | 656,569 | 1,100 | 3.0 p.p. |
| Maranhão | São Luís | 410,713 | 1,100 | 3.0 p.p. |
| Alagoas | Maceió | 372,426 | 1,100 | 3.0 p.p. |
| Rio Grande do Norte | Natal | 332,429 | 1,100 | 3.0 p.p. |
| Piauí | Teresina | 331,707 | 1,100 | 3.0 p.p. |
| Paraíba | João Pessoa | 300,369 | 1,100 | 3.0 p.p. |
| Sergipe | Aracaju | 237,539 | 1,100 | 3.0 p.p. |
| Total | | 4,781,901 | 9,900 | 1.0 p.p. |

Source: Elaborated by DataInfo

Field Work Description

- Field work split into five steps
 - Focus Groups, one in Fortaleza, CE, and the other in João Pessoa, PB
 - Training in Survey Solution for researchers and survey firm members (a full week, 40 hours workload)
 - Pre-testing (administered in Fortaleza, CE and Natal, RN)
 - 9 *in loco* training for a total of 256 interviewers (a full week, 40 hours workload at each city)
 - Application of the final version of the questionnaire
- Interviewer's training consisted of three modules
 - First module explored concepts of gender, gender norms and gender based violence (GBV)
 - Second module presented technical aspects of tools such as equipment operation, sampling issues, and technical details about questionnaire
 - Third module dealt with incentives and motivations, and some specific aspects of the questionnaire

Training and Field Materials - Instituto Maria da Penha



Field Work Schedule

Table 3: Schedule of Activities - Wave 1

| UF | ACTIVITY | START | END |
|---------|---|------------------------------|--------|
| PB & CE | Focus Group | 17-Dec, 2015 and 5-Feb, 2016 | |
| CE | World Bank Training - Survey Solutions | 1-Feb | 5-Feb |
| CE | Training - IMP | 22-Feb | 24-Feb |
| CE | Training - DATAINFO | 25-Feb | 26-Feb |
| CE | Pilot project field | 29-Feb | 4-Mar |
| RN | Pilot project field | 29-Feb | 4-Mar |
| CE | Field work | 30-Mar | 8-Apr |
| RN | Interviewers' Training | 4-Apr | 8-Apr |
| RN | Field work | 11-Apr | 22-Apr |
| PI | Interviewers' Training | 11-Apr | 15-Apr |
| PI | Field work | 18-Apr | 29-Apr |
| MA | Interviewers' Training | 11-Apr | 15-Apr |
| MA | Field work | 18-Apr | 29-Apr |
| PB | Interviewers' Training | 25-Apr | 29-Apr |
| PB | Field work | 2-May | 13-May |
| PE | Interviewers' Training | 2-May | 6-May |
| PE | Field work | 9-May | 20-May |
| AL | Interviewers' Training | 2-May | 6-May |
| AL | Field work | 9-May | 20-May |
| SE | Interviewers' Training | 9-May | 13-May |
| SE | Field work | 16-May | 27-May |
| BA | Interviewers' Training | 16-May | 20-May |
| BA | Field work | 23-May | 3-Jun |

Source: Elaborated by Authors

Sample Design V (COVID-19's Challenges)

- Evidence of an increase in DFVAWC (Domestic and Family Violence Against Women and Children) because of the pandemic has recently come to light
- New sub-project under the “umbrella” of the PCSVDF^{Mulher} project: *Understanding the Impacts of Covid-19 on Domestic Violence in Brazil*, financed entirely by the Sexual Violence Research Initiative, SVRI
- The overarching aim of this project is to add and extend the PCSVDF^{Mulher} by investigating the impact of Covid-19 and the associated responses domestic and family violence against women and children in Brazil, including:
 - public health measures
 - the emergency conditional cash transfers
- CATI interview of 6,000 women from the 2019 PCSVDF^{Mulher} sample
- Ongoing project, expected to finish by October, 2022

Anatomy of Selection in Wave 1

Table 4: Number and percentage of interviewed women in each section - Wave 1

| Section | Started the Section | Eligible for the Section | % |
|--|------------------------|-----------------------------|-------|
| S1-WOMAN'S QUESTIONNAIRE | 10,094 | 10,094 | 100.0 |
| S2-THE MARIA DA PENHA LAW | 9,493 | 10,094 | 94.1 |
| S3-RESPONDENT AND HER PARTNER | 8,987 | 10,094 | 89.0 |
| S4-BARGAINING POWER | 3,974 | 4,381 | 90.7 |
| S5-EXPER. OF VIOLENCE PARTNER/EX-PARTNER | 6,922 | 7,411 | 93.4 |
| S6-EXPER. OF VIOLENCE NOT PARTNER/EX-PARTNER | 7,921 | 10,094 | 78.5 |
| S7-MATCH VALUATION | 7,847 | 10,094 | 77.7 |
| S8-SUPPLEMENTARY SECTION | 8,410 | 10,094 | 83.3 |

Source: Elaborated by the Authors.

Longitudinal Studies on IPV - Small Scale ($\leq 3,000$)

Table 5: Longitudinal Studies on IPV

| Study | Authors | Sample Size | Inter-Wave Length | Attrition Rate |
|---|-------------------------|-------------|-------------------|----------------|
| Domestic Violence Intervention Education Project (DVIEP) | Davis and Taylor (1997) | 436 | 6 months | 0.28 |
| Women, Co-occurring Disorders, and Violence Study (WCDVS) | Mchugo and alli (2005) | 2,729 | 6 months | 0.26 |
| Study of Posttraumatic Stress Disorder, Anxiety, and Depression in Australian Victims of DV | Merti and Mohr (2001) | 100 | 12 months | 0.41 |
| The Broward County Evaluation | Gondolf (2001) | 404 | 12 months | 0.79 |
| Women's Employment Study, or "WES" | Tolman and Wang (2005) | 753 | 12 months | Na |

Source: Elaborated by Authors.

Longitudinal Studies on IPV - Large Scale (> 3,000)

Table 6: Longitudinal Studies on IPV

| Study | Authors | Sample | Inter-Wave | Attrition |
|---------------------------------------|---------------|-----------|-------------------------|--|
| Women's Health Australia | Lee (2005) | > 40,000 | 12 months | 0.32 - 0.36 young-age, 0.17 - 0.10 mid-age |
| British Study Millennium Cohort Study | Plewis(2007) | 18,552 | | 0.72 |
| NLS of Adolescent Health - Add Health | Harris (2013) | 20,745 | 12 months | 0.22 |
| NCVS - United States | Powers (2016) | ≈ 100,000 | 7 x 6 months (rotating) | ≈ 0.25 (see, NAP (2014)) |

Source: Elaborated by Authors.

Protocol of Questionnaire in Wave 2

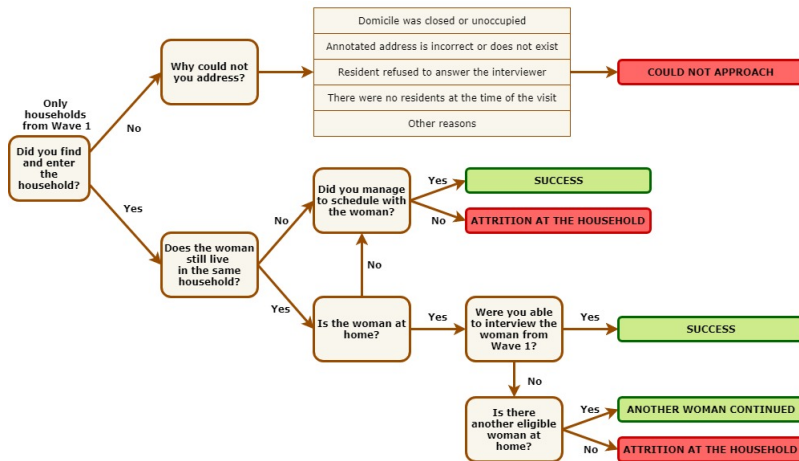


Figure 6: Protocol of PCSVDF^{Mulher}

Table 7: Attrition in the PCSVDF^{Mulher}

| Observation Type | 2016 | Observation Type | 2017 |
|---------------------|--------|-----------------------------------|--------|
| Matched Observation | 4,665 | Matched Observation | 4,665 |
| Attrition 1 | 1,031 | Replacement - Original Household | 1,031 |
| Attrition 2 | 4,398 | Replacement - Different Household | 4,822 |
| Total | 10,094 | Total | 10,518 |

Source: Elaborated by Authors. Attrition Rate $\frac{5,429}{10,094} \simeq 0.54$

The *PCSVDF^{Mulher}* as a Surveillance System

- *PCSVDF^{Mulher}* collects information on five types of violence against women: Emotional, Physical, Sexual, Moral and Patrimonial
- This distinction follows the World Health Organization and the Maria da Penha Law guidelines
- This is the first time a representative and methodological sound project measures all types of gender violence in Brazil
- For the first time we measure **Stealthing (Non-Consensual Condom Removal)** in a representative Brazilian sample

Defining Emotional, Physical and Sexual Violence

Table 8: Actions and Types of Violence

| Type | Actions |
|------|---|
| EV | a - Insulted you or made you feel bad about yourself? |
| | b - Belittled or humiliated you in front of your parents or other family members? |
| | c - Belittled or humiliated you in front of other people? |
| | d - Done things to scare or intimidate you on purpose |
| | e - Threatened to hurt you or someone that you care about? |
| PV | a - Slapped you or thrown something at you that could hurt you? |
| | b - Pushed you or shoved you or pulled your hair? |
| | c - Hit you with his fist or something else that could hurt you? |
| | d - Kicked you, dragged you or beaten you up? |
| | e - Choked you? |
| | f - Burnt you on purpose? |
| | g - Threatened to use a gun, knife, wood, iron, axe or other weapon against you? |
| | h - Actually used a gun, knife, wood, iron, axe or other weapon against you? |
| SV | a - force you to have sexual intercourse when you did not want to? |
| | b - Had a sexual relationship with you, without using physical violence, just because you were afraid of his reaction if you said no? |
| | c - force you to do something sexual that you found degrading or humiliating? |

Source: Elaborated by the Authors

Prevalence of IPV - Northeast of Brazil

| Type of IPV | Prevalence | | | | |
|------------------------------|--------------------------|--------------------------|---------------------------|---------------------------|-------------------------------|
| | Full 2016 (n=10,094) | Full 2017 (n=10,518) | Matched 2016 (n=4,665) | Matched 2017 (n=4,665) | Replacement 2017 (n=5,853) |
| Lifetime | | | | | |
| <i>V_{emotional}</i> | 29,30 (28.07 - 30.56) | 30,55 (29.4 - 31.73) | 28,89 (27.14 - 30.71) | 28,96 (27.32 - 30.65) | 32,01 (30.39 - 33.67) |
| <i>V_{physical}</i> | 19,04 (17.97 - 20.15) | 17,47 (16.52 - 18.46) | 18,80 (17.29 - 20.4) | 16,01 (14.69 - 17.42) | 18,82 (17.47 - 20.26) |
| <i>V_{sexual}</i> | 7,75 (7.04 - 8.53) | 7,28 (6.64 - 7.97) | 7,38 (6.4 - 8.5) | 6,91 (6.02 - 7.91) | 7,62 (6.73 - 8.62) |
| <i>IPV</i> | 35,22 (33.91 - 36.56) | 34,51 (33.31 - 35.74) | 34,84 (32.96 - 36.76) | 33,17 (31.45 - 34.93) | 35,75 (34.06 - 37.46) |
| | | | | | |
| | Full 2016 (n=10,094) | Full 2017 (n=10,518) | Matched 2016 (n=4,665) | Matched 2017 (n=4,665) | Replacement 2017 (n=5,853) |
| Last 12 Months | | | | | |
| <i>V_{emotional}</i> | 13,18 (12.28 - 14.15) | 14,00 (13.13 - 14.91) | 12,33 (11.08 - 13.71) | 13,41 (12.2 - 14.73) | 14,53 (13.32 - 15.83) |
| <i>V_{physical}</i> | 6,06 (5.43 - 6.77) | 5,22 (4.67 - 5.83) | 5,71 (4.83 - 6.72) | 4,22 (3.52 - 5.04) | 6,15 (5.34 - 7.08) |
| <i>V_{sexual}</i> | 2,62 (2.21 - 3.1) | 2,37 (2 - 2.79) | 2,21 (1.69 - 2.89) | 2,15 (1.67 - 2.77) | 2,56 (2.05 - 3.2) |
| <i>IPV</i> | 15,54 (14.54 - 16.59) | 15,77 (14.84 - 16.74) | 14,62 (13.23 - 16.12) | 15,06 (13.76 - 16.46) | 16,42 (15.12 - 17.8) |

Source: Elaborated by the authors. Asymptotic Confidence Interval of 95% appears below, inside parenthesis.

Figure 7: Prevalence of $V_{emotional}$, $V_{physical}$, V_{sexual} , and IPV in the Northeast Region

Bargaining Power I

- This section collects information necessary to investigate the impact of intrahousehold redistribution of resources on the structure of household consumption (Browning, Chiappori, and Weiss, 2014);
- The PCSVDF^{Mulher} provides alternative ways of measuring bargaining power using information:
 - a.** on stated decision-making (e.g., "who has the final say in the household") regarding expenditures on different items (Peterman et al., 2015);
 - b.** on actual decision-making (e.g., expenditures on different goods);
- Moreover, under minimal assumptions and by combining information from other sections, we will be able to test:
 - i.** whether households behave efficiently or not; and
 - ii.** what is the relationship between female empowerment and domestic violence.

Bargaining Power II

- Household spending was obtained for the same 16 domains.

Table 9: With which products/services were spent some money in this household?

| Spend | Response Rate (%) |
|--|-------------------|
| Education for children (tuitions, fees, transport etc.) | 23.62 |
| Transportation (gas, maintenance of the vehicle, bus tickets, etc) | 31.52 |
| Cigarettes or tobacco products and alcoholic beverages | 8.65 |
| Food | 82.96 |
| Rent/mortgage | 23.2 |
| Medicine or medical services | 34.74 |
| Electricity and Water | 60.71 |
| Telephone (fixed, cell) and internet | 34.36 |
| Clothes/shoes for girls (including uniforms) | 26.7 |
| Clothes/shoes for boys (including uniforms) | 21.67 |
| Fun/entertaining (movie, club, etc) | 18.31 |
| Clothes/shoes for women | 34.05 |
| Clothes/shoes for men | 24.25 |
| Social events (parties, weddings, etc.) | 8.08 |
| Repellents and insecticides | 14.12 |
| Savings/ checking account | 7.97 |

Source: Elaborated by the Authors.

General and Reproductive Health I

- The section starts with questions relative to fear of crime and neighborhood conditions, which are very useful to characterize the neighborhood where the interviewed woman lives
- Domestic violence is one of the most important threats to women's mental health (WHO, 2012)
- The PCSVDF^{Mulher} also provides information about the use of medication and women's mental health
- For instance, 41% of interviewed women report felt themselves (often or always) stressed in the last month
- 8.2% felt themselves unhappy, and 7.5% did not feel themselves not be self-confident

General and Reproductive Health II

- The PCSVDF^{Mulher} also brings information about sexual activity, use of contraceptive methods, and history of pregnancies
- In Brazil, 8% of pregnant women in urban areas reported to have experienced physical aggression during pregnancy (WHO, 2005)
- Domestic violence during pregnancy is associated to low birth weight, preterm birth, small gestational age, neonatal and maternal death (Alhusen et al., 2015)

Table 10: Descriptive Statistics

| | Mean | Dtd.Dev | Min. | Max. |
|-------------------|----------|----------|------|-------|
| Gestational Weeks | 38.02 | 5.02 | 0 | 50 |
| Birth Weight | 3,037.19 | 1,035.63 | 0 | 7,300 |
| Girls | 0.49 | 0.50 | 0 | 1 |
| Cesarean Delivery | 0.38 | 0.49 | 0 | 1 |
| Child is alive | 0.97 | 0.18 | 0 | 1 |

Source: Elaborated by the Authors.

Female Labor Market I

- This section collects information necessary to investigate the impact of domestic violence on female labor market outcomes such as productivity, wages, health status, unemployment & employment dynamics
- The PCSVDF^{Mulher} provides ways of estimating and interpreting structural models of search:
 - a. longitudinal measurement of stress, health, alcohol, cigarette and drug consumption
 - b. absenteeism, durations of employment and unemployment
 - c. search effort & strategy, reservation wages, expected wages, and subjective expectations
 - d. ethnicity/racial background, occupation, sexual orientation and “colorism”
- It also allows testing Crenshaw’s intersectionality, a key analytic framework through which feminist scholars talk about the socioeconomic effects of structural identities

Female Labor Market II

- The PCSVDF^{Mulher} can enrich labor market research and theorizing by allowing intersectionality into our analysis (Race, color, victimization status, and gender)
- Evidence of intersectionality in: wage inequality, discrimination, and occupation

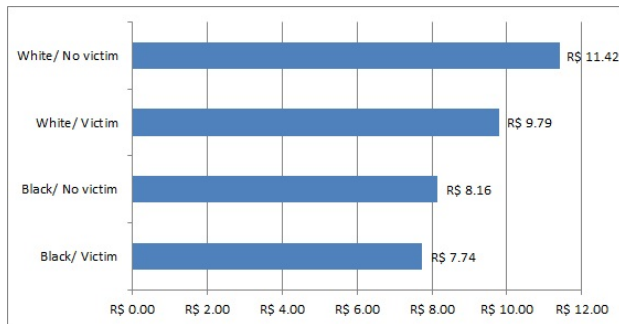


Figure 9: Intersectionality (Race *versus* Victimization) in Hourly Wages

“Fear of Crime” I

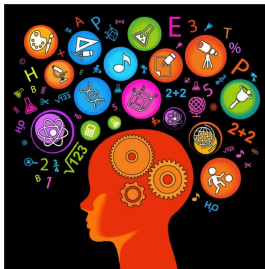
- Although the effect of domestic violence on the individual is known and documented, such as its effects on physical and mental health, or in their children, less is known about its economic cost to society
- In recent years, some studies have tried to fill this gap (such as CDC (2003); Walby (2004); Economics (2004); Duvvury et al. (2012); Kasirye (2012); Zhang et al. (2012); Stern et al. (2013); KPMG (2016)).
- In general, these studies estimated the cost of domestic violence considering three dimensions: direct tangible costs (such as criminal justice, health services, and social services), indirect tangible costs (loss of earnings, profit, and economic value due to illness, invalidity, or death) and intangible costs (pain and suffering of victims, loss of quality of life, and loss of life).

“Fear of Crime” II

- However, none of them include the “fear of victimization” (or, fear of crime) in the account of intangible costs
- In $PCSVDF^{Mulher}$, we measure fear of victimization through the subjective probability of being a victim of domestic violence and estimate the cost of the fear of domestic violence by means of contingent valuation methods
- We presented to women a fictional program, based on the use of a small device called “panic button” and calculated a total value (cost) of willingness to pay of approximately **R\$ 2.8 billions** (approximately US\$ 673.1 million) per year

What to Do Now?

PCSVDF^{Mulher} has made considerable efforts at collecting and analyzing data, so ... what now?



Next, we draft 5 relevant scientific ideas (Bargaining, Network of Assistance, Match Valuation, “Panic Button”, and Child Development) worth pursuing with our data

Bargaining Power with Endogenous Domestic Violence

- Literature asserts that this phenomenon is best analyzed in a non-cooperative framework (see, Tauchen, Witte, and Long (1991), Farmer and Tiefenthaler (1996), and Bloch and Rao (2002), and Eswaran and Malhotra (2011))
- Domestic violence is “instrumental” (as opposed to “expressive”)
- Some important theoretical and empirical gaps remain (conceptualize violence, multidimensional valuation of match, dynamics, structural estimation) mainly due to the lack of adequate data
- PCSVDF^{Mulher} has a strong view towards the structural estimation of models of household bargaining

Evaluation of the Brazilian Network of Assistance of IPV's Victims

- During the last decade, Brazil has built a complex institutional network of assistance to fight against Domestic Violence (Kiss et al (2012))
- That network includes: women's specialized police offices, special prosecutors office, health clinics, shelters, and many others (SPM (2011))
- Understanding women's help-seeking patterns after an episode of domestic violence is a fundamental policy concern (WHO (2013), Prosman, Wong, Lagro-Janssen (2014))
- However, researching that issue has been difficult mainly due to empirical limitations and by survey design considerations
- PCSVDF^{Mulher} can afford a better approach to the problem, since issues surrounding severe "selection bias" can be relaxed by the use of its empirical content

Multidimensional Match Valuation with Subjective Expectations and Counterfactuals

- Why people marry? Multi-domain answer: standard of living, affective and sexual life, experience of raising children, protection and security, and respect and courtesy (Browning, Chiappori, and Weiss (2014))
- Subjective well-being data can provide an important complement to value the marriage match into its multiple domains (Decancq and Lugo, 2010, and Fleurbaey, M., Schokkaert, E., and Decancq, K. (2009))
- Such measurements have great potential to understand why people match (and unmatched) with likely insights on the role played by gender violence
- PCSVDF^{Mulher} has a whole section that can support innovative investigations about multi-dimensional well-being

Contingent Valuation of Lotteries: The “Panic Button” Initiative

- Contingent Valuation (CV) is a method widely used in recent decades by means of measuring willingness to pay (WTP) when the discrete change between two “states of nature” is deterministic
- The more general, and interesting, case of measuring WTP for changes between lotteries of “states of nature” are still lacking a complete approach (see, Cameron, DeShazo, and Stiffler (2010) and Cameron and DeShazo (2013))
- Measuring WTP for changes between lotteries raises theoretical, empirical and computational issues still under development (see, Freeman, Herriges and Kling (2014), and Andre and Carvalho (2015))
- PCSVDF^{Mulher} brings a detailed set of questions well suited to advance the empirical literature on estimation of WTP for lotteries in a context of a hypothetical “Panic Button” context

Child Development

- The PCSVDF^{Mulher} gives us the opportunity to investigate the consequences (on newborn and children) of exposure to violence during childhood and pregnancy
- However, what happens to child development when child's exposure to violence remains after birth? Which are the mechanisms? What can be done in terms of policy?
- In order to provide answer to these questions, we need to track children in the future waves of the survey, that's exactly what we are doing now, with 400 children!
- Our Wave 3 questionnaire added a small instrument to measures physical, social, emotional, cognitive, speech and language development ("Age and Stages Questionnaire")

- Relatório 1: *“Prevalência da Violência Doméstica e o Impacto nas Novas Gerações”*, Fortaleza - Dezembro/2016
- Relatório 2: *“Violência Doméstica e seu Impacto no Mercado de Trabalho e na Produtividade das Mulheres”*, Fortaleza - Agosto/2017
- Relatório 3: *“Violência Doméstica, Violência na Gravidez e Transmissão entre Gerações”*, São Paulo - 2017

Scientific Manuscripts/Papers

- Paper 1: *“The PCSVDF^{Mulher} Study: New Data, Prevalence and Correlates of Domestic Violence in Brazil”*, under review
- Paper 2: Quintana-Domeque, C., Carvalho, J. R. and Oliveira, V. H. (2018), *Zika virus incidence, preventive and reproductive behaviors: Correlates from new survey data*, Economics & Human Biology, Volume 30, September 2018, Pages 14-23
- Paper 3: *“Violência Doméstica: Percepções de Mulheres do Nordeste do Brasil”*, under review

Dissertation and Thesis

- M.Sc. Dissertation 1: *“Determinantes Socioeconômicos da Dinâmica de Fertilidade no Nordeste Brasileiro utilizando a base de dados da PCSVDF^{Mulher}”* (José Eduardo Coelho and José Raimundo Carvalho), 2017, CAEN/UFC
- Ph.D. Thesis 1: *“Essays on the Econometrics of Gender, Domestic and Intimate Partner Violence”* (Abel Brasil - Adviser: José Raimundo Carvalho), 2018, CAEN/UFC
- Ph.D. Thesis 2: *“The Intergerational Transmission of Domestic Violence (provisory title)”* (Hellano Almeida - Adviser: José Raimundo Carvalho), under development, CAEN/UFC
- M.Sc. Dissertation 2: *“Skin Color and the Risk of Domestic Violence in Brazil”* (Sara Parente - Adviser: José Raimundo Carvalho), 2019, CAEN/UFC
- M.Sc. Dissertation 3: *“Intimate Partner Violence and Separation: an Empirical Analysis”* (Daniel Lopes Ribeiro - Adviser: José Raimundo Carvalho), 2019, CAEN/UFC
- Ph.D. Thesis 3: *“Measuring Domestic Violence in Longitudinal Research: Survey Non-response and Inconsistencies”* (Eduardo Cândido - Adviser: José Raimundo Carvalho), under development, CAEN/UFC

Presentation in Seminars, Workshops and Meetings

- World Bank, Washington, USA, 2016
- Université de Toulouse, France, 2016
- ONU Mulheres, Brasil, DF, 2017
- UFRN, Natal, RN, 2017
- Free University of Amsterdam, Amsterdam, The Netherlands, 2018
- Catholic University of the Sacred Heart, Roma, Itália, 2018
- XI Encontro da ABCP, Curitiba, PR, 2018
- Faculdade de Saúde Pública da USP, São Paulo, SP, 2018
- Instituto de Estudos Avançados/USP, São Paulo, SP, 2018
- University of Gothenburg, Gothenburg, Sweden, 2018
- Universidade Nova de Lisboa, Lisboa, Portugal, 2019

- TV - Cobertura Local: CE-TV (Globo local), Jornal do Meio-Dia (TV Diário), diversos jornais nordestinos
- TV - Cobertura Nacional: Jornal Nacional (Globo), Jornal Hoje(Globo), Jornal da Cultura(Cultura), outros
- Revistas e Jornais com circulação Local e Nacional: Revista Exame, Correio Brasiliense, O Estadão, O Povo (CE), Tribuna do Norte (RN), entre outros
- Diversas rádios, blogs e sites especializados

New Features: PCSVDF *Mulher*

- National scope ✓
- Improve longitudinal sample plan: sampling frequency, weighting and rotation ✓
- Refine questionnaire
 - Maria da Penha Law's five dimensions of violence (physical, psychological, sexual, moral and patrimonial) ✓
 - Collect biomarkers (saliva and blood)
 - Adapt to same sex couples
 - Information on women's network and neighborhood ✓
- Include a male questionnaire
- Subsample of Microcredit participants
- Nest with Random Control Trials ✓
- CATI sampling ✓

- Redefine governance and scientific partnership ✓
- Attract students and researchers ✓
- Plan for future funding (We DO have a plan BUT NOT actual funding!) ✓
- Strategy of publication ✓
- Develop Communication Platform and project's site

Final Comments

- Lots of work to do!
- Thanks for all support and financing received so far
- However, we DO NEED as soon as possible regular and committed funding that is commensurate with the scope and potential of the PCSVDF^{Mulher} project
- Many thanks to the local organizers of the Seminar



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