OUTLINE

• Greetings and introductions
• Introduction to mixed-methods research
• Examples of mixed-methods migrant health research designs
• Summary
Mixed-methods Research

- Increasingly used approach
- Contextual understanding
- Multi-level perspectives
- Cultural influences
- Multiple methods
- Objective and subjective knowledge

(NIH, 2011)
Drawing on Strengths of Each Approach

**Qualitative Methods**
- Focus is on contexts, meaning, experiences
- Centers on voices of participants
- Offers deep knowledge
- Inductive: Generates theories

**Quantitative Methods**
- Offers broad, generalizable knowledge
- Allows replication, comparison
- Deductive: Tests theories and associations
- Analyzed statistically

(NIH, 2011)
Typical Methods

**Qualitative**
- In-depth interviews
- Key informant interviews
- Focus groups
- Ethnographic observation
- Case studies

**Quantitative**
- Surveys
- Case-control, cohort studies
- Randomized controlled trials
- Time-series
- Biometric assessments

(NIH, 2011)
Designing A Mixed-Methods Study

• Start with research questions you want to answer
• Identify suitable quantitative and qualitative methods
  • What is most suitable for research questions
  • What is feasible with resources and expertise
• Determine purpose of each method
  • Formative, informing future steps
  • Triangulating, increasing confidence on findings
  • Complementing, illustrating findings
Different Mixed-Methods Designs

- Convergent / parallel / concurrent
  - Intent is to merge data
- Sequential
  - Quantitative → qualitative: To expand understanding of results
  - Qualitative → quantitative: To inform quantitative questionnaire
- Embedded / nested
  - One method is secondary to the other
- Multiphase
  - Several studies sharing a common purpose

(NIH, 2011)
Data Integration

**Merging** data: reporting and contrasting findings from both methods

**Connecting** data: using one method to inform second phase

**Embedding** data: one method embedded within another

(NIH, 2011)
Merging Data: Mixed Methods Convergent Parallel Design

Integration Using Comparison of Results’ Strategy

Integration Using Comparison of Results’ Strategy (Cont.)

Using A Convergence Coding Matrix

• Triangulation of quantitative and qualitative findings
• Identifying and reporting:
  • Patterns of convergence or agreement
  • Patterns of dissonance or disagreement
• Main findings displayed on a table
# Example of Convergence Coding Matrix

## Findings from Quantitative Methods

<table>
<thead>
<tr>
<th>Quant. method 1</th>
<th>Study design and sample</th>
<th>Measures &amp; statistical analyses</th>
<th>Finding 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Finding 2</td>
</tr>
</tbody>
</table>

## Findings from Qualitative Methods

<table>
<thead>
<tr>
<th>Qual. method 1</th>
<th>Sample and analytical approach</th>
<th>Theme 1</th>
<th>Subtheme 1</th>
<th>Subtheme 2</th>
</tr>
</thead>
</table>

## Integration of Quantitative and Qualitative Results

<table>
<thead>
<tr>
<th>Agreement/convergence between both data</th>
<th>Agreement 1</th>
<th>Quant &amp; qual finding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agreement 2</td>
<td>Quant &amp; qual finding</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Complementary information</th>
<th>Compl. info 1</th>
<th>Quant &amp; qual finding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Compl. info 2</td>
<td>Quant &amp; qual finding</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dissonance/disagreement</th>
<th>Contradiction 1</th>
<th>Quant &amp; qual finding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Contradiction 2</td>
<td>Quant &amp; qual finding</td>
</tr>
</tbody>
</table>

## Mixed Methods Interpretation

<table>
<thead>
<tr>
<th>Inference 1</th>
<th>Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inference 2</td>
<td>Discussion</td>
</tr>
</tbody>
</table>
The Between The Lines Project: Impact of Parental Deportation on Child Health & Well-Being

R21HD085157 (PI: Martinez-Donate)
**Study Design & Methods**

**Ambidirectional Cohort Study**
- Children of deported and non-deported Mexican parents
- Caregivers
- Phone surveys (N=102 families)
- Survey administration schedule: Baseline (T0), 12 mos. (T1), 18 mos. (T2)

**QUANT Data Analysis**

**QUAL Data Analysis**

**Integration Stage**

**Merge Quan and Qual Results**

**Mixed Methods Analysis**

**Mixed Methods Interpretation**

Study Design & Methods (Cont.)

Ambidirectional Cohort Study
- Children of deported and non-deported Mexican parents
- Caregivers
- Phone surveys (N=102 families)
- Survey administration schedule: Baseline (T0), 12 mos. (T1), 18 mos. (T2)

• Descriptive statistics
• Fixed-effects regression models

Integration Stage

QUAL Data Analysis

Merge Quan and Qual Results

Mixed Methods Analysis

Mixed Methods Interpretation

1
2
3

Listing and joining
Comparing Contrasting Verifying
Building

### (Selected) Quantitative Findings

<table>
<thead>
<tr>
<th></th>
<th>Parental Deportation Effects at T1 B (p)</th>
<th>Parental Deportation Effects at T2 B (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child health status</td>
<td>-.284*</td>
<td>-.314*</td>
</tr>
<tr>
<td>Anxiety</td>
<td>.116</td>
<td>.108</td>
</tr>
<tr>
<td>Depression</td>
<td>.188*</td>
<td>.094</td>
</tr>
<tr>
<td>Internalizing behavioral problems</td>
<td>.407****</td>
<td>.583****</td>
</tr>
<tr>
<td>Externalizing behavioral problems</td>
<td>.254***</td>
<td>.325****</td>
</tr>
<tr>
<td>Behavioral Difficulties</td>
<td>.328****</td>
<td>.449****</td>
</tr>
<tr>
<td>Food insecurity</td>
<td>.129</td>
<td>.186+</td>
</tr>
<tr>
<td>Housing quality issues</td>
<td>.454****</td>
<td>.626****</td>
</tr>
<tr>
<td>Child effort at school</td>
<td>-.110</td>
<td>-.31**</td>
</tr>
</tbody>
</table>

* p values based on fixed-effects regression models
+ p<=.10; * p<=.05; ** p<=.01; ***p<=.005; ****p<=.001

Martinez-Donate et al. Under review
Example: The Between The Lines Study
Impact of Parental Deportation on Child Health & Well-Being (Cont.)

QUANT Data Collection Procedure

QUANT Data Analysis

Integration Stage

Merge Quan and Qual Results

Mixed Methods Analysis

Mixed Methods Interpretation

In-depth interviews
- Children and caregivers in exposed and control families (N=48)
- Administered after T2

QUAL Data Analysis

Listing and joining

Comparing

Contrasting

Verifying

Building

Example: The Between The Lines Study
Impact of Parental Deportation on Child Health & Well-Being (Cont.)

**QUANT Data Collection Procedure**
- In-depth interviews
  - Children and caregivers in exposed and control families (N=48)
  - Administered after T2

**QUANT Data Analysis**
- Transcript coding
- Interpretive content analysis
- Themes, subthemes

**Integration Stage**
- Merge Quan and Qual Results

**Mixed Methods Analysis**

**Mixed Methods Interpretation**

1. Listing and joining
2. Comparing
   - Contrasting
   - Verifying
3. Building

### Selected Qualitative Findings

**Table 4. Qualitative findings on impact of parental deportation based on interviews with U.S.-based caregivers of children (N=14).**

<table>
<thead>
<tr>
<th>Themes</th>
<th>Quotes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deterioration of physical health and health</td>
<td>“She has asthma, so [after parent’s deportation] we noticed, I was noticing like at school, they would call me all the time, like she has had an asthma attack, or she’s having a hard time breathing.&quot; (Silvia, unknown age)</td>
</tr>
<tr>
<td>behaviors</td>
<td>“And now [after parent’s deportation] she is sick all the time, her stomach hurts, her head hurts.&quot; (Rosa, 56 years)</td>
</tr>
<tr>
<td></td>
<td>“There are times that I make food then, then they remember their dad. ‘Oh, my dad liked this a lot’ and they start crying and then they don’t eat.” (Ernestina, 44 years)</td>
</tr>
<tr>
<td>Psychological impact, especially sadness</td>
<td>“They start crying, that is, and they know that their dad is not here, anyway, but they still have, they think that…they think that the people who took their dad can come one day for me. [Name of the child] says, ‘Mom, why did all this happen, Mom, why did they take my dad? Or mom what if they come for you? And you are not here anymore?’ (Reyna, 40 years)</td>
</tr>
<tr>
<td>and fear</td>
<td>“It is very sad. It is very sad seeing my kids sleep most of the time... They are no longer the same people from before. [Name of the child] used to play the piano... almost always, almost every day.” (Rosa, 56 years)</td>
</tr>
<tr>
<td>Impact on behavior: withdrawal, anger,</td>
<td>“So, the oldest girl spent weeks locked in her room. She didn’t want to come out, only from home to school, school to home, so I took her to a doctor, and they gave her some pills like for like depression. Like that. She stays locked up. They gave her pills&quot; (Ernestina, 44 years)</td>
</tr>
<tr>
<td>rebelliousness</td>
<td>“[Name of the child] is also angry, defensive with me. Yes, he easily gets angry.” (Lupita, 46 years)</td>
</tr>
<tr>
<td>Impact on academics: Loss in motivation,</td>
<td>“You know, she wants to go back and forth all the time and I don’t know. It just seems like this has really been going on a lot this last year. She was never like that with me before. Never bickering, never arguing, you know, she was not like that at all.” (Tania, 43 years)</td>
</tr>
<tr>
<td>lack of concentration, and negative outlook.</td>
<td>“After that [referring to deportation], from there, she didn’t want to go to school. And before, she, even if she was sick and all of that, she liked to go to school. She didn’t like missing it. And now […] she only wants to be sleeping. ” (Rosa, 56 years)</td>
</tr>
<tr>
<td></td>
<td>“Right now, it’s like, [Name of Child]’s not motivated. I don’t know, like he’s not motivated to study […] Yes, he’s having a hard time to get on classes right now… he lost his desire, I don’t know his motivation maybe.” (Daniela, 47 years)</td>
</tr>
<tr>
<td></td>
<td>“I notice that-that things have changed in the way of thinking and all of that because before she always said that she was going to be a doctor…That she was going to be a doctor so… since she knows that career is expensive for us and, as you know, that I don’t have a stable job. No, not anymore. Now, she thinks in things like… I don’t know. There were a lot of plans with her before…” (Rosa, 56 years)</td>
</tr>
</tbody>
</table>

Martinez-Donate et al. Under review
## Portion of Convergence Coding Matrix from Between The Lines Study

### Findings from Quantitative Methods

<table>
<thead>
<tr>
<th>Caregivers’ survey</th>
<th>112 caregivers from exposed and control families</th>
<th>Conducted at T0, T1, T2</th>
<th>13 health, behavioral, economic, academic outcomes</th>
<th>Fixed-effects regression models</th>
<th>Parental deportation is significantly associated with negative changes in child health</th>
<th>Parental deportation is associated with worse academic indicators</th>
</tr>
</thead>
</table>

### Findings from Qualitative Methods

<table>
<thead>
<tr>
<th>In-depth interviews with caregivers</th>
<th>14 caregivers from exposed families</th>
<th>Interpretive content analysis</th>
<th>Impact on academics</th>
<th>Caregivers report children loss motivation to study</th>
<th>They note child has a negative outlook</th>
</tr>
</thead>
</table>

### Integration of Quantitative and Qualitative Results

<table>
<thead>
<tr>
<th>Agreement/convergence between both data</th>
<th>Exposure to parental deportation has a detrimental impact on child’s academic performance</th>
<th>Significant regression coefficients for exposed group from T0 to T2 Caregivers perceived that children are doing worse in school since parent deported</th>
</tr>
</thead>
</table>
### Integration of Quantitative and Qualitative Results (Cont.)

<table>
<thead>
<tr>
<th>Complementary information</th>
<th>Negative impacts on housing quality</th>
<th>Significant decrease in housing quality score from regression models</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Increased child responsibilities</td>
<td>Caregivers report having to rely more on children to cope with financial stress</td>
</tr>
</tbody>
</table>

| Dissonance/disagreement   | None                                | N/A |

### Mixed Methods Interpretation

Parental deportation hurts children in immigrant families in multiple ways

Compared to children who do not experience the deportation of their parents, adolescents in families separated by deportation experience a host of negative health, behavioral, academic, and economic impacts. Of 13 different outcomes examined, we observed negative effects immediately and/or 6 months after deportation in all of them. For 10 out of these 13 outcomes, the differences were statistically significant despite the small sample size and limited statistical power. The reports shared by the caregivers during qualitative interviews matched and graphically illustrated these trends.
Safe-zone schools and the academic performance of children in mixed-status households: Evidence from the ‘between the lines’ study

Catalina Amuedo-Dorantes , José R. Bucheli and Ana P. Martínez-Donate

Abstract

In response to the intensification of immigration enforcement in the interior of the USA, some school districts have implemented ‘safe-zone’ policies to protect students’ academic progression and well-being. Using primary data from a sample of US-born children of unauthorized migrants, we document the detrimental effect of stricter immigration enforcement on children’s educational outcomes and the benefits of safe-zone policies. Our analyses show that restricting immigration authorities’ access to schools and providing counseling on immigration-related issues are crucial policy components in strengthening children’s focus, effort, expectations, parental involvement, and relationships. These findings highlight the damaging impact of immigration enforcement on US-citizen children in mixed-

Quotes to Illustrate Quantitative Findings

"My school counselor was a really big help. She helped me figure out where my missing assignments were. And she was like ‘Hey, if you get through college, if you get a good education, you can help your dad over there. You can get him a better house, you can get him a better job, you can send him money.’ (…) I don’t know what happened. How [school counselor] found out [about parental deportation]. But I’m actually really glad that they did because if they didn’t, I don’t know where I would be at right now."

Between the Lines survey respondent
Embedded Design: CRISOL Pilot Study

Martinez-Donate et al. PLoS ONE, in press.
Specific Aims

- To develop an integrated intervention to address the syndemics affecting Latino immigrants
- To implement the pilot CRISOL intervention
- To evaluate feasibility, acceptability, obtain pilot efficacy data
Program Design

• Informed by:
  • Community-based participatory research
  • Popular Opinion Leader Model
  • Community resilience & empowerment
  • Previous Latino-focused, peer-driven programs

• Two levels, two phases:
  • Training of 8-10 immigrant community leaders (Sept-Dec, 2019)
    • 40 hours (10 sessions)
  • Community Outreach (Jan-Sept, 2020)
    • 8 months
    • Bi-monthly support meetings
    • 10 community contacts per month, per leader

Israel et al. 1988; Rogers, 1962; Wiggins, 2012; Dearing & Cox, 2018
### CRiSOL Training

#### OBJECTIVES

- Increase leaders’ syndemics-related knowledge and skills to:
  - Educate and inform
  - Model healthy norms
  - Link to services
  - Build self- and community resilience

- Link between professionals, organizations, and community members
- 10 community contacts per month, per leader

<table>
<thead>
<tr>
<th>MODULE</th>
<th>CONTENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction to CRiSOL and the POL Model</td>
</tr>
<tr>
<td>2</td>
<td>Introduction to Resilience</td>
</tr>
<tr>
<td>3</td>
<td>HIV/AIDS &amp; STIs</td>
</tr>
<tr>
<td>4</td>
<td>Domestic Violence</td>
</tr>
<tr>
<td>5</td>
<td>Mental Health</td>
</tr>
<tr>
<td>6</td>
<td>Substance Abuse</td>
</tr>
<tr>
<td>7</td>
<td>Skills Development: Resilient Communities</td>
</tr>
<tr>
<td>8</td>
<td>Resources and Connections With SAVAME Prevention and Treatment Services</td>
</tr>
<tr>
<td>9</td>
<td>Skills Development – POLs as Community Researchers</td>
</tr>
<tr>
<td>10</td>
<td>Putting It All Together – Review Session</td>
</tr>
</tbody>
</table>
## Evaluation Guided by RE-AIM Framework

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reach</td>
<td>• Number of community leaders trained</td>
</tr>
<tr>
<td></td>
<td>• Number of community interactions</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>• Changes in knowledge, skills, resilience</td>
</tr>
<tr>
<td>Adoption</td>
<td>• Number of leaders that started outreach phase</td>
</tr>
<tr>
<td>Implementation</td>
<td>• Fidelity, attendance, satisfaction</td>
</tr>
<tr>
<td>Maintenance</td>
<td>• Number of active leaders 8 months after graduation</td>
</tr>
</tbody>
</table>

Glasgow et al. 1999
Evaluation Data Collection Methods

- **Attendance records**
- **Observational Checklist**
- **Pre and post training tests**
- **Post-session satisfaction survey**
- **Leaders’ activity log: interactions, topics, actions**
- **Semi-structured qualitative interviews (N=9) to assess overall experiences of immigrant community leaders**

Martinez-Donate et al. PLoS ONE, in press.
Reach, Adoption, & Maintenance (Comm. Leaders)

33 Interested

20 Follow-up

17 Candidates Interviewed

15 Leaders enrolled

87% 9 Leaders continued to Outreach Phase

100% 9 leaders retained after 8 months

Age: M: 39 (SD: 6.5) 100%
Sex: 77% Female
Region of Origin: Puerto Rico, Mexico, Ecuador, El Salvador, DR, Peru

Martinez-Donate et al. PLoS ONE, in press.
Training Implementation

High Attendance (0-10 sessions)  
M = 9.1 (SD=1.6)

Fidelity to Training Topics (0-100%)  
M = 89.5% (SD=17.2)

Participants’ Satisfaction (1-5)  
M = 3.9 (SD=0.23)

Martinez-Donate et al. PLoS ONE, in press.
Training Effectiveness

Change in Knowledge Scores

<table>
<thead>
<tr>
<th>Topic</th>
<th>% Pre-training</th>
<th>% Post-training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Knowledge</td>
<td>59.3</td>
<td>80</td>
</tr>
<tr>
<td>Knowledge POL Role</td>
<td>36.4</td>
<td>75</td>
</tr>
<tr>
<td>Knowledge HIV/STI</td>
<td>62.5</td>
<td>100</td>
</tr>
<tr>
<td>Knowledge Substance Use</td>
<td>25</td>
<td>100</td>
</tr>
<tr>
<td>Knowledge Mental Health</td>
<td>75</td>
<td>100</td>
</tr>
<tr>
<td>Knowledge Domestic Violence</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>Leadership Skills</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>Resilience</td>
<td>75</td>
<td>79.2</td>
</tr>
</tbody>
</table>

Median Number of Sources/Recipients of Support

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>19</td>
<td>26</td>
</tr>
<tr>
<td>Family</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Community</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Providers</td>
<td>2</td>
<td>7</td>
</tr>
</tbody>
</table>

Martinez-Donate et al. PLoS ONE, in press.
Community Reach & Implementation

Number of Monthly Community Interactions During Outreach Period (Months 1 - 8)

Topics Discussed During Interactions (N=825)

Type of Help Provided (N=825)

Type of Referral Provided (N=277)

Martinez-Donate et al. PLoS ONE, in press.
## Experiences of Community Leaders

<table>
<thead>
<tr>
<th>Themes</th>
<th>Quotes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Growth &amp; Congruency</td>
<td>“This [training] helped us personally, helped us grow and learn.”</td>
</tr>
<tr>
<td></td>
<td>“Sometimes we don’t have the opportunities to go to school or have a professional development; so, when we find groups like [CRiSOL], we start growing.”</td>
</tr>
<tr>
<td>Broaden Perspective</td>
<td>“[The training] helped me to understand how the Latino undocumented community is... they suffer, they are afraid of being deported. I have never experienced that.”</td>
</tr>
<tr>
<td></td>
<td>“[The training] has benefited me a lot; due to the diversity of my peers, now I have an idea of how to treat people from other nationalities.”</td>
</tr>
<tr>
<td>Self-Confidence</td>
<td>“People can take a helping path with me, I can teach and guide other, share my tools with them. I can guide them with confidence to adequate resources.”</td>
</tr>
<tr>
<td></td>
<td>“[The training] has given me a route map to [know] how to guide people to help... It has given me the confidence to be a community leader.”</td>
</tr>
</tbody>
</table>

Martinez-Donate et al. PLoS ONE, in press.
Experiences (Cont.)

<table>
<thead>
<tr>
<th>Themes</th>
<th>Quotes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Respect &amp; Empathy</strong></td>
<td>“(I have gained) the ability to not pressure people... give them space, to not insist... now I know that I have to give them space to help them.”</td>
</tr>
<tr>
<td></td>
<td>“[The training] helped me to be more mindful and respectful of people that had problems that I was not aware of.”</td>
</tr>
<tr>
<td><strong>Improved Communication Skills</strong></td>
<td>“I feel more prepared to talk with other people and my family.”</td>
</tr>
<tr>
<td></td>
<td>“It is helping me in how I see things. For example, sexually; there are social norms that I believe in, but now I can talk with my friends naturally ... I’m not afraid to talk about alcohol problems. I have learned to be tactful and to not pressure people.”</td>
</tr>
<tr>
<td><strong>Increased Knowledge</strong></td>
<td>“Now I have more awareness of the syndemic. I know the community and these tools give me options.”</td>
</tr>
<tr>
<td></td>
<td>“I have learned more about STIs and to deal with people that have alcohol related problems.”</td>
</tr>
</tbody>
</table>

Martinez-Donate et al. PLoS ONE, in press.
Understanding & Addressing Syndemics in Latino Immigrants: A Multiphase Mixed-Methods Study

R21 MD012352, PI: Martinez-Donate
### Understanding Syndemics in Latino Immigrants

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Characterizing the SAVAME syndemic among Latino immigrant communities in Philadelphia</td>
<td>Mapping community assets and inter-organizational collaborations</td>
<td>Laying the foundation for a future, communitywide intervention</td>
</tr>
</tbody>
</table>
Hybrid Mixed-Methods Study Design

**LINKS:**
- Survey of Service Provider Organizations (N=43)
- Key Informant Interviews with Service Providers (N=30)

**Primary Data Collection:**
- Integrating Results: Understanding Syndemics in Latino Immigrants
- In-depth Interviews with Latino Immigrants (N=30)
- Respondent-driven Sampling Survey (N=420)
Study Design & Methods

LINKS:
Survey of Service Provider Organizations (N=43)
Key Informant Interviews with Service Providers (N=30)
In-depth Interviews with Latino Immigrants (N=30)
Respondent-driven Sampling Survey (N=420)

Integrating Results: Understanding Syndemics in Latino Immigrants
Latino Immigrant Network of Services (LINKS) Survey

- To **map and characterize** Latino-serving organizations in Philadelphia
- A **roster** of main Latino-serving organizations providing SAVAME health and/or social services
  - Substance Abuse
  - Violence
  - HIV/AIDS
  - Mental health
- Online, self-administered survey sent to 43 organizations
- Response Rate=72.1%

(Giordano et al., 2021; Dsouza et al., 2021)
Provider Perspectives on Latino Immigrants’ Access to Resources for Syndemic Health Issues

Kristin R. Giordano, MPH¹, Nishita Dsouza, MPH, PhD(c)¹, Elizabeth McGhee-Hassrick, PhD², Omar Martinez, JD, MPH, MS³, and Ana P. Martinez-Donate, PhD¹

Figure 1. Types of Services Provided by Network of 31 Latino-serving Organizations*

*Services are not mutually exclusive.
Perceived Level of Integration of Services Across SAVAME Services

(Giordano et al., 2021)
Analysis of Network Characteristics to Assess Community Capacity of Latino-Serving Organizations in Philadelphia

Nishita Dsouza · Elizabeth McGhee-Hassrick · Kristin Giordano · Chris Friedmann · Yoshiki Yamasaki · Cristina Perez · Omar Martinez · Amy Carroll-Scott · Ana P. Martinez-Donate

Accepted: 22 February 2021
© The New York Academy of Medicine 2021

Abstract Latino immigrants are disproportionately impacted by substance use, HIV/AIDS, domestic violence, and mental health (SAVAME). The burden of these syndemic conditions is influenced by limited access to health and social services to prevent and treat these conditions. The syndemic nature of these factors necessitates an integrated, coordinated approach to address them simultaneously. We analyzed characteristics of Latino-serving organizations in Philadelphia, PA, that provide SAVAME-related health and/or social services, and their interorganizational collaborations to meet the needs of Philadelphia’s Latino communities. We surveyed Latino-serving organizations (N=43) identified through existing resource directories and key informants. Network analyses identified patterns and density of collaborative ties (i.e., referrals, administrative, or planning/advocacy) across organizations and characterized these ties by type of service. Density (expressed as percent of all possible ties) revealed a higher referral rate (40%) than administrative (29%) or planning (26%) coordination. Network sociograms display clusters of providers by geography. Examination of bonding (within-group) ties revealed comparable perceptions of high value among both South/Center Philadelphia (57%) and in North Philadelphia providers (56%), but bridging (between-group) ties suggest lower levels of high-value perceptions (24%). No evident clustering by type of service based on syndemic factor was observed. Density of bridging across types of providers was

Density By Type of Services Provided

Referral: 46 (% bonding: 17, % bridging: 29)
Admin.: 40 (% bonding: 11, % bridging: 29)
Planning: 32 (% bonding: 9, % bridging: 23)
Study Design & Methods

LINKS:
Survey of Service Provider Organizations (N=43)
Key Informant Interviews with Service Providers (N=30)
In-depth Interviews with Latino Immigrants (N=30)
Respondent-driven Sampling Survey (N=420)

Integrating Results: Understanding Syndemics in Latino Immigrants
Key Informant Interviews

- Interviews with staff from Latino-serving organizations (N=30)
- Qualitative interviews recorded, transcribed, anonymized
- Analyzed using thematic coding and grounded theory
  - A priori codes plus new, emerging codes
- Double coding and discrepancies reconciled by consensus
- High inter-rater reliability (IRR=91.4-94.7)

(Martinez-Donate et al., 2022)
Interview Guide

Impact of SAVAME on Philadelphia Latino community
• Impact of social, contextual, structural factors
• Patterns based on gender, origin, migration status

Availability of SAVAME services in Philadelphia
• Reasons for limited availability
• Responses to lack of availability, referral processes

Accessibility of SAVAME services
• Factors involved in limited accessibility
• Suggestions to make services more accessible

Adequacy of SAVAME services
• Factors contributing to different levels of adequacy
• Strategies to make services more adequate

Collaborations with other Latino-serving organizations
• Interest in coalition building
The SAVAME syndemic

Great need for SAVAME services in this community
Mental health and domestic violence seen as most prevalent issues
Concurrence of multiple SAVAME issues among Latino clients
Integrated services for SAVAME are needed, but rarely feasible for Latino-serving organizations
Fragmentation of SAVAME services forces providers to rely on client referrals; results in issues being untreated

Availability
HIV/AIDS and domestic violence are available at Latino-trusted organizations
Substance use and mental health services are largely insufficient, particularly specialized services
Different availability of, and siloed services tied to existence/absence of dedicated funding streams for issues

Access
Mental health or substance use services out of reach for uninsured, undocumented, or LEP individuals
Latino immigrants are unaware of SAVAME services
Stigma, fear of immigration create hesitancy to seek services
Providers want to connect community members to services, but often lack time and knowledge about evolving network
Welcoming environment, location, and appointment flexibility are critical for Latino-serving organizations

Adequacy
Limited cultural competency and consideration of trauma
Translation services are not enough, especially as Latino population grows
Lack of provider-client ethnic concordance lowers quality of services, particularly for mental health
Small, low-capacity organizations struggle to hire/retain staff and expand the range of SAVAME services needed by their clients

Integrated SAVAME Services for Latino Immigrants in Philadelphia are direly needed but insufficient and siloed. Existing services are difficult to access due to multiple policy, organizational, and client barriers. Limited cultural competency and little organizational...
Study Design & Methods

Integrating Results: Understanding Syndemics in Latino Immigrants

LINKS:
Survey of Service Provider Organizations (N=43)

Key Informant Interviews with Service Providers (N=30)

In-depth Interviews with Latino Immigrants (N=30)

Respondent-driven Sampling Survey (N=420)
In-Depth Interviews

- Interviews with Latino immigrant and Puerto Rico born community members (N=30)
- Direct or indirect experience with SAVAME issues
- Purposive sampling
- 63% females, 70% from Mexico, 80% undocumented
- Interviews recorded, coded, analyzed using thematic analysis
- Double coding of 33% of transcripts (IRR=0.95)
<table>
<thead>
<tr>
<th>Interview Guide</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Migration history</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Experience with SAVAME issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct (personal)</td>
</tr>
<tr>
<td>Indirect (proxy)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factors that contributed to SAVAME issue onset</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Factors that contributed to continuation/relapse/recovery</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Coping strategies</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Experiences seeking help for SAVAME in Philadelphia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of help sought</td>
</tr>
<tr>
<td>Reasons for not seeking help</td>
</tr>
<tr>
<td>Availability, accessibility and adequacy of services</td>
</tr>
<tr>
<td>Challenges experienced seeking help</td>
</tr>
</tbody>
</table>
Themes from Qualitative Interviews

SAVAME Syndemic

Traditional gender roles
Post-migration stress
Religion
Family
Trauma & ACEs
Stigma
Lack of awareness
Latino providers
Limited service utilization
Respondent-driven Sampling Survey (N=420)

- Foreign- and Puerto Rico-born Latinos
  - 18-55 years old
  - Philadelphia residents
- Interviewer-administered by phone
- 56 seeds
  - Up to 3 referrals each
- Testing for HIV/STI
- Measures informed by IDIs

<table>
<thead>
<tr>
<th>Survey Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAVAME issues</td>
</tr>
<tr>
<td>SAVAME service utilization and barriers</td>
</tr>
<tr>
<td>COVID infection, testing, vaccine</td>
</tr>
<tr>
<td>Migration</td>
</tr>
<tr>
<td>Acculturative stress</td>
</tr>
<tr>
<td>Discrimination</td>
</tr>
<tr>
<td>Social support</td>
</tr>
<tr>
<td>Traditional gender norms</td>
</tr>
<tr>
<td>Religion</td>
</tr>
<tr>
<td>Stigma</td>
</tr>
<tr>
<td>ACEs</td>
</tr>
<tr>
<td>Familism</td>
</tr>
<tr>
<td>Resilience</td>
</tr>
</tbody>
</table>
Challenges of Mixed-Methods Research

• More complex, requires more resources: time, funds, expertise
  • Personnel
  • Software
  • Training
  • Participant recruitment
  • Incentives
• Interpretation of findings
• Publishing:
  • Strict word limitations
  • Reviewers’ expertise
• Relatively new approach, training opportunities and best practices still emerging
Summary

• Combining quantitative and qualitative methods:
  • To obtain a better, more granular picture
  • To illustrate quantitative findings
  • To inform instrument design or adaptation
  • To inform future study phases
  • To compensate for design limitations

• Different study designs depending on needs, resources, opportunities

• Not without challenges
Questions