MANO A MANO
“HAND TO HAND”

Increasing HIV/AIDS Knowledge among Chilean Women: An example of an effective, culturally-adapted, nursing intervention.

Sarah Miner, MSN; Lilian Ferrer, PhD; Rosina Cianelli, PhD; Natalia Villegas, MSN

Funding for this study was provided by the National Institutes of Health, Fogarty Office through Grants: GRIP R01 TW 03006 & AITRP 1D43 TW01419.
MANO A MANO
A Multidisciplinary Strategy for HIV and AIDS Prevention in Chile
Research Team

Principal Investigators (PI)
Rosina Cianelli, PhD & Lilian Ferrer, PhD.

Co-Investigators (Co-I)
Alejandra Araya, Cecilia Arechabala, Paula Bedregal, Báltica Cabieses, Ximena Ferrer, Lisette Irarrázabal, Carlos Pérez, Paula Reppeto, Jaime Sapag, Ximena Triviño.

International Co-Investigators:
Strategy

• Interdisciplinary.
• International.
• Integrated within society.
• Theory Based.
• Seeks primary and secondary prevention with different groups, utilizing integral intervention focused on empowerment.
• Centered on Scientific Research.
Funded Research Projects


- 2004. NGOs: Communities Organizing Around HIV/AIDS in Santiago, Chile, Fogarty International Center, NIH(1D43 TWO1419).


## Research Description
### Mixed design with 3 phases

| PHASE I | Exploratory. Mixed Methodology. Understanding of the Community. Validation of Instruments. | Interviews  
Questionnaires  
Observations  
Focus Groups |
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>PHASE II</td>
<td>Cultural Adaptation of <strong>Mano a Mano</strong> using qualitative methodologies</td>
<td>Information PHASE I + previous experience with international projects (Mdzake ndi Mdzake and SEPA) + work with “experts”</td>
</tr>
</tbody>
</table>
| PHASE III | Evaluation of Effectiveness of **Mano a Mano**, Quasi-experimental or pre-experimental Design. | Control and Intervention Group  
Series of pre and post intervention evaluations. |
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HIV/AIDS

WORLDWIDE

- Over 33 million people live with HIV/AIDS.
- Almost 43% of them are women.

LATIN AMERICA

- Over 1.8 million people living with HIV/AIDS in Latin America.
- 580,000 are women.

CHILE

- There have been over 38,000 cases of HIV/AIDS reported
- Women represent 15% of the people living with HIV in Chile, and epidemiological data demonstrate a sustained rise in cases of HIV among women.
- Between 1986-1990, the ratio of male to female infection was 7:1, but currently has dropped to 4:1.  
  (CONASIDA, 2003; UNAIDS, 2008)
HIV/AIDS and Chilean Women

• HIV is severely affecting Chilean women; in whom the predominant mode of transmission is heterosexual contact. Currently, the majority of recently infected women are concentrated among those who have a stable partner.

• Previous research with Chilean women detected a lack of knowledge related to HIV transmission and prevention.

• There is scarce information on the topic and no HIV interventions targeting Chilean women.

(Cianelli, 2003; CONASIDA, 2003; UNAIDS, 2005)
MANO A MANO
AN HIV/AIDS PREVENTION INITIATIVE

• Collaborative initiative between the Catholic University in Chile (UC), the University of Illinois at Chicago (UIC), and the University of Miami.

• The project “Testing an HIV/AIDS prevention intervention for Chilean women” (R01 TW 03006, PI Dr. Rocina Cianelli) was designed to culturally adapt, implement and test an HIV prevention program for Chilean women based on a previously effective program with Latino women in Chicago.
Investigators

Rosina Cianelli, PhD (PI)
Pontificia Universidad Católica de Chile

CO-INVESTIGATORS UC
- Lilian Ferrer, PhD (Co-I)
- Paula Bedregal, MD (Co-I)

UIC (Co-I and Mentor)
University of Miami
(Co-I and Mentor)
- Kathleen Crittenden, PhD
- Judith Levy, PhD
- Kathleen Norr, PhD
- Beverly McElmurry, EdD
- Nilda Peragallo, DrPh
Conceptual Model

**Cultural Factors**
- Machismo
- Marianismo
- Socioeconomic disadvantage
- Substance abuse

**Personal Factors**

**Partners and Relationship Factors**
- Inadequate social response
- Violence

**Intervention vs. Control Peer Group Intervention Content**
- Culturally specific content on HIV/AIDS prevention, relationships, conflict management, communication & negotiation, violence, substance abuse.
- Skill building exercises including role-playing, guided discussion, and hands on practice.

**Post Intervention HIV/AIDS Prevention Outcomes**
- Increased knowledge of HIV/AIDS related knowledge and perceived HIV/AIDS risk.
- Improved HIV/AIDS attitudes & and general psychological health.
- Increased risk reduction behaviors.
Intervention

6 sessions of 2 hours each

Topics:
What is happening with HIV/AIDS in your community

Understanding Sexually transmitted Infections (STI) including HIV/AIDS

How can we prevent HIV/AIDS

How to negotiate and communicate with your partner

Preventing and controlling domestic violence

Saying goodbye to the training and welcoming the future
The Mano a Mano Peer Group Intervention

- Sessions are lead by trained facilitators
- Peer leaders who have received the training return to assist with the following groups
Methodology

**Objective:** Analyze the effect of an HIV and AIDS prevention Intervention on HIV related knowledge among socially disadvantaged Chilean women.

**Design:** Quasi-experimental

**Setting:** Two low-income Communities in Santiago, Chile

**Sample:** n=496

**Inclusion Criteria:** Chilean female, aged 18-49, sexually active within past 6 months, resident of La Pintana or Puente Alto

Approval IRB, School of Nursing PUC
Methodology

Data Collection:

• Participants were recruited in waiting rooms of health care clinics, community organizations, community events, and using snowballing strategies and health care worker referral from two low income communities in Santiago (intervention = 244, Control = 252)

• Semi-structured interviews baseline, post-intervention (6 weeks control group), and 3 months follow up.
Methodology

Variables:
• HIV Risk Knowledge Score (Heckman et al., 1995)
  • Score 0-15
  • Alpha 0.624-0.734

Data Analysis:
• ANOVA with repeated measures
  • t-test.
• SPSS 15.0
# Results (Socio-demographic)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Intervention (n=244) n (%)</th>
<th>Control (n=252) n (%)</th>
<th>X2</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 – 20</td>
<td>19 (7.8)</td>
<td>35 (13.9)</td>
<td>t (1.098)</td>
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<tr>
<td>21 – 25</td>
<td>42 (17.2)</td>
<td>47 (18.7)</td>
<td></td>
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<tr>
<td>26 – 30</td>
<td>41 (16.8)</td>
<td>31 (12.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31 – 35</td>
<td>50 (20.5)</td>
<td>43 (17.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36 – 40</td>
<td>40 (16.4)</td>
<td>38 (15.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41 – 45</td>
<td>28 (11.5)</td>
<td>34 (13.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>46 - 49</td>
<td>24 (9.8)</td>
<td>24 (9.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lives with partner</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Lives with spouse or</td>
<td>178 (73)</td>
<td>180 (71.4)</td>
<td>0.143</td>
<td>0.705</td>
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<tr>
<td>partner</td>
<td>66 (27)</td>
<td>72 (28.6)</td>
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</tr>
<tr>
<td>Lives alone</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Insurance</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Public</td>
<td>179 (73.4)</td>
<td>216 (85.7)</td>
<td>22.252</td>
<td>0.000</td>
</tr>
<tr>
<td>Private</td>
<td>3 (1.2)</td>
<td>9 (3.6)</td>
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<tr>
<td>Without health insurance</td>
<td>56 (23)</td>
<td>21 (8.3)</td>
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<tr>
<td>Other</td>
<td>6 (2.5)</td>
<td>6 (2.4)</td>
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## Results (Socio-demographic)

<table>
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<tr>
<th>Religion</th>
<th>Catholic</th>
<th>137 (56.1)</th>
<th>148 (58.7)</th>
<th>4.569</th>
<th>0.334</th>
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<tbody>
<tr>
<td></td>
<td>Evangelic</td>
<td>59 (24.2)</td>
<td>44 (17.5)</td>
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<tr>
<td></td>
<td>None</td>
<td>28 (11.5)</td>
<td>35 (13.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>19 (7.7)</td>
<td>22 (8.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Refuse Answer</td>
<td>1 (0.4)</td>
<td>3 (1.2)</td>
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<tr>
<td>Education</td>
<td>None</td>
<td>0 (0)</td>
<td>4 (1.6)</td>
<td>16.255</td>
<td>0.003</td>
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<td>Basic School (≤ 8 years)</td>
<td>73 (29.9)</td>
<td>46 (18.3)</td>
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<tr>
<td></td>
<td>High School (9-12 years)</td>
<td>146 (59.8)</td>
<td>157 (62.3)</td>
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<tr>
<td></td>
<td>Technician Level</td>
<td>19 (7.8)</td>
<td>36 (14.3)</td>
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<tr>
<td></td>
<td>University Level</td>
<td>6 (2.5)</td>
<td>9 (3.6)</td>
<td></td>
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HIV Risk Knowledge Score (Heckman et al., 1995)

<table>
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<tr>
<th></th>
<th>Intervention</th>
<th>Control</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Mean ± SD</td>
</tr>
<tr>
<td>Baseline</td>
<td>234</td>
<td>8.58 ± 2.61</td>
</tr>
<tr>
<td>Follow up 6 weeks</td>
<td>167</td>
<td>12.34 ± 2.38</td>
</tr>
<tr>
<td>Follow up 3 months</td>
<td>170</td>
<td>12.09 ± 2.52</td>
</tr>
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</table>
Results

- Statistically significant increases in HIV related knowledge were found among the intervention group post intervention (t=-16.54, p<0.05) and 3 months post (t=16.334, p<0.05), while there was no change in knowledge in the control group (p>0.05).

- Intervention groups demonstrated higher scores than control at 6 weeks (t=10.65, p<0.05) and 3 months post intervention (t=9.78, p<0.05).

- Statistically significant differences were found between intervention and control groups and across the three measures in time (F=93.33, p<0.05).
Results

HIV Risk Knowledge at Baseline, 6 Weeks and 3 Months of Follow up
Conclusions

• This HIV intervention was effective in creating positive changes in knowledge among Chilean women, demonstrating that culturally adapted, nursing HIV prevention interventions can be successful.

• HIV/AIDS related knowledge is a protective factor in the prevention of HIV, and because of this it is necessary for nursing to include it in the realization of effective prevention programs.
Discussion

• At the individual level, women can increase their sensitivity to HIV/AIDS prevention, reduce their personal risk of HIV infection, and become role models for their own families and other women, in the community.

• Within the health care system, the intervention can be replicated with women of other community clinics settings.

• Mobilizing women as leaders for HIV prevention, will have practical benefits for the families, community and the nation's health.
• The intervention is effective in Chile, demonstrating that when culturally adapted, it has been effective in three countries in very different cultural regions, with different economic levels and stages of the epidemic. (Malawi, USA, Chile)

• This provides strong evidence of the robustness of the conceptual framework with important implications for the field of behavioral interventions for HIV prevention in women.

• The intervention may also be relevant for adaptation in other Latin American countries, especially where Spanish is the predominant language.
MANO A MANO

Gracias

Thank you!