Bridging Implementation Science and Cultural Adaptations

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Key points

• Bridging the fields of implementation science and intervention adaptations can help reduce the implementation gap

• Integration will benefit both fields of research and practice
Fundamental Characteristics of Implementation Science

• Dynamic social process shaped by context

• Requires mutual-adaptation

• Collaborative endeavor

• Change process

Sources: Cabassa, 2016; Chambers et al., 2016; Proctor et al., 2009
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<tr>
<th></th>
<th>Cultural Adaptation</th>
<th>Implementation Science</th>
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<tbody>
<tr>
<td><strong>Definition</strong></td>
<td>Systematic modification to make EBTs compatible to client’s culture</td>
<td>Study of methods to promote the integration of research and EBTs in health care policy and practice</td>
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<tr>
<td><strong>Unit of analysis</strong></td>
<td>Clients, families/caregivers, providers</td>
<td>Providers, clinical units, organizations, systems of care, communities</td>
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<tr>
<td><strong>Emphasis</strong></td>
<td>Provider and client levels</td>
<td>Organizational, knowledge exchange between stakeholders</td>
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Sources: Cabassa, 2016; Proctor et al., 2009
What we know about cultural adaptations

- Culturally adapted treatments produce small to moderate effect sizes ($d = 0.21-0.46$) when compared to usual care/un-adapted treatments.

- Problem of heterogeneity in this literature

- Adapted treatments seem to be more beneficial for:
  - Low acculturated Hispanics
  - Non-English speaking clients
  - Older clients
  - When treatment are delivered to homogenous groups

- Adaptations with the most benefits:
  - Therapeutic goals
  - Explanatory model of illness
  - Use of metaphors/symbols in treatment to match client’s cultural views

Sources: Benish et al., 2006; Huey et al., 2008; Griner et al., 2006; Smith et al., 2011
Why integrate implementation science and intervention adaptations?

• Implementation is a mutual adaptation process

• Each field brings different perspectives

• Same goals:
  – Improve the quality of care
  – Make treatments generalizable
Implementation
Outcomes
Feasibility
Fidelity
Penetration
Acceptability
Sustainability
Uptake
Costs

Service
Outcomes*
Efficiency
Safety
Effectiveness
Equity
Patient-centeredness
Timeliness

Patient
Outcomes
Satisfaction
Function
Health status/symptoms

What?
QIs
ESTs

How?
Implementation Strategies

Processes

*Institute of Medicine Standards of Care

Source: Proctor et al 2008 Admin. & Pol. in Mental Health Services
Adaptation

 Processes

 WHAT? QIs ESTs

 HOW? Implementation Strategies

Science of Adaptations

Why
• Distinct sociocultural context
• Threat to social validity

What
• Surface and/or deeper level
• Context

How
• Systematic and collaborative
• Document (pre, during, post)

Impact
• On implementation, services and/or client outcomes.

Sources: Baumann, Cabassa & Stirman, 2018; Rabin et al., 2018; Stirman et al., 2017
Areas of Integration

1. Make adaptations systematic and visible

2. Document what is adapted

3. Key players driving adaptations and implementation

4. Expanding the contextual lens

Sources: Cabassa & Baumann, 2013; Rabin et al., 2018; Stirman et al., 2017
Example from the Field:
The Collaborative Intervention Planning Framework: An approach to engage stakeholders in customizing interventions for implementation
Serious Mental Illness (SMI)

• Mental disorders (e.g., schizophrenia, bipolar disorder) that interfere with major life activities and result in serious functional limitations

• 10 million adults in the U.S. reported a serious mental illness in the past year

• Constitute 5 out of the 10 leading causes of disability worldwide

• Recovery is possible with the right supports and treatments

Sources: SAMSHA, 2014; Knapp et al., 2004
People with serious mental illness die at an earlier age than the rest of the population, **between 13 to 30 years earlier**, largely due to cardiovascular disease.

Sources: Laursen et al., 2014; SAMHSA-HRSA Center for Integrated Health Solutions; Walker et al., 2015
Is There a Double Health Burden for Latinos with SMI?

- Increased risk for:
  - Cardiovascular-related mortality
  - Diabetes mellitus
  - Metabolic syndrome
  - Negative metabolic abnormalities (e.g., weight gain) associated with taking antipsychotic medications

Evidence is inconclusive

Sources: Carliner et al., 2014; Das-Munshi et al., 2016; Mangurian et al., 2017
### Modifiable Risk Factors

<table>
<thead>
<tr>
<th>Environment</th>
<th>Medical Care</th>
<th>Health Behaviors</th>
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<tr>
<td>• Unstable housing</td>
<td>• Underuse of services</td>
<td>• Smoking</td>
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<td>• Poverty</td>
<td>• Poor quality of care</td>
<td>• Sedentary lifestyle</td>
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<tr>
<td>• Food environment</td>
<td>• Lack of care coordination</td>
<td>• Unhealthy diets</td>
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Sources: Allison et al., 2009; Cabassa et al., 2014; Newcomer et al., 2007
“Our patients, partly because of their illnesses... cultural and language issues, and... because the system is not very well organized they often get lost in the system..."

The patients just get overwhelmed... you're not feeling well, you may have symptoms of psychosis; you don't speak the language, and you're trying to figure out what office to go to; it can be overwhelming, and patients get frustrated and don't get the care that they need” (Administrator).

Health Care Manager Interventions

Patient Barriers

Goal setting/Patient activation/Problem solving

Provider/Org. Barriers

Care Coordination

Health Care Manager’s Role:

• Coach
• Connect
• Coordinate

Sources: Bartels et al., 2004; Druss et al., 2010; Kilbourne et al., 2008
Primary Care Assessment Referral and Evaluation (PCARE) Intervention

Mental Health Providers

Health Care Manager

Primary Care Providers

Bridge, monitor and coordinate

Coach, connects coordinates

Patient and support system

PCARE Characteristics:
- 12 month program
- At least, monthly visits with health care manager
- Delivered by Registered Nurses
Local Implementation Gap

- Use of PCARE with Latinos with SMI is unknown
- Lack of integration of cultural factors into health interventions for people with SMI
- PCARE only been used with registered nurses
  - Can social workers be health care managers?
- Patients referred to local primary care clinics for primary care services
Collaborative Intervention Planning Framework

Stakeholders

Researchers

Community Advisory Board

Using Intervention Mapping

Intervention Preparation Projects (e.g., focus groups, stakeholder interviews)

Adapted Intervention with an Implementation Plan

CBPR Principles
- Shared health concerns
- Ownership
- Co-learning
- Capacity building

Key Framework Characteristics

- Involves stakeholders in a participatory process
- Values different sources of knowledge
- Uses a strengths-based ecological perspective
- Uses a systematic framework based on intervention mapping procedures to inform adaptations
- Focuses on adaptations that enhance fit and relevance of the intervention to local practice setting

Source: Cabassa et al., 2014
Community Advisory Board

• Included:
  • Primary care doctor
  • Social worker
  • Clinic director (Psychiatrist)
  • Peer specialist
  • Registered Nurse
  • Research team

• Monthly meetings

• Directed each step of the adaptation process
Adaptation Steps Using Intervention Mapping

Step 1: Setting the Stage

Step 2: Problem Analysis

Step 3: Review of Intervention Objectives and Theory

Step 4: Development of Adapted Intervention

Step 5: Development of Implementation Plan

Step 6: Evaluation

Sources: Bartholomew et al., 2006; Tortolero et al., 2005
Step 2: Problem Analysis: What to adapt

• **Objectives:**
  • Identify health-care needs of Hispanic clients
  • Discuss how the intervention may or may not address these needs
  • Identify areas for adaptation

• **Activities:**
  • Mixed-methods problem analysis (N = 40)
  • Group discussions
  • Development and refinement of logic model

• **Products:**
  • Problem analysis findings
  • Logic model

Source: Cabassa et al., *APMHMHSR*, 2014
Mixed-Methods Problem Analysis

Structured Client Interviews
- Demographics
- Standardized instruments
  * PACIC
  * PAM
  * Self-Efficacy
  * SF-12

Chart Reviews
- Health and mental health status
- Medications
- Lab results

Focus Groups
- Subset of patients participated in 5 focus groups
Stressed Health Care System

- Fragmented care
- Long waiting times
- Language barriers
- High staff turnover

Perceived Discrimination and Stigma

Positive
- Personal attention
- Warmth & friendliness
- Culturally congruent style

Negative
- Stigma
- Impersonal
- Rushed
- Disrespectful

Low levels of patient-centered care

Source: Cabassa et al., *APMHMHSR*, 2014
Key Lessons from Problem Analysis

• Care coordination essential to help Hispanics with SMI navigate a stressed and complex local health care system

• Participants valued medical providers who displayed interpersonal styles compatible with core cultural norms and patient-centered care

• Interpersonal aspects of care critical for improving patients involvement in their medical care
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Sources: Bartholomew et al., 2006; Tortolero et al., 2005
Step 4: Development of Intervention Adaptations

- **Objectives:**
  - Incorporate adaptation into the intervention manual and materials
  - Finalize adapted intervention

- **Activities:**
  - Group discussions
  - Review of intervention manual and materials

- **Products:**
  - Adapted intervention manual and materials
  - Training curriculum
Cultural Adaptations

• **Surface Level:**
  – Language and literacy level
  – Delivering intervention at trusted location

• **Deep Level:**
  – Patient activation: deference to authority, mistrust
  – Care coordination: professional boundaries, navigation

Sources: Kreuter et al., 2003; Resnicow et al., 1999
Adaptations: What and Why

Provider Adaptations

Preventive Primary Care Tool
- Care-coordination plan
- Use of cultural norms in HCM-client interactions

Cultural Adaptations: Surface Level
- Bilingual HCM
- Educational Materials
- Personal Health Record

Cultural Adaptation: Deep Level
- Cultural Formulation Interview
- Patient Activation Check List
- Problem Solving Module

Provider Adaptation: Care Coordination

Original PCARE Trial

B2BHW Study

Cultural Adaptations (Surface Level): Health-Related *Fotonovelas*

- To improve clients’ knowledge of health conditions
- To model appropriate interactions with medical providers
- To model self-management behaviors to cope with chronic medical conditions.
Cultural Adaptations (Deep Level): Cultural Formulation Interview for Health

Health Assessment

- Biographical data
- Family and emergency contacts
- Current medical providers
- Medical insurance
- Personal and social history
- Current medications
- Past medical history
- Mental health and substance abuse history
- Health literacy
- A short review of systems
- Preventive care history
- Health habits and patterns
- Vital signs (weight/height/blood pressure/waist circumference)

CFI-H

- Person-centered interview
- Focuses on the person’s illness narrative
- Conveys personalismo, warmth, and respect

Sources: Cabassa et al., 2014; Lewis-Fernández et al., 2014
## Table 3 Summary of intervention adaptations

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<tr>
<th>Intervention domain adapted</th>
<th>Rationale for adaptation</th>
<th>Description of adaptation</th>
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<tr>
<td>Cultural adaptations</td>
<td>• Language is a critical barrier to care for many Hispanic clients with limited English proficiency.</td>
<td>• Use bilingual health-care managers to deliver the intervention.</td>
</tr>
<tr>
<td>Health-care manager personnel</td>
<td>• Health-care manager interpersonal skills and interactions with clients need to reflect core cultural norms valued and preferred by Hispanic clients (e.g., <em>personalismo, respeto, dignidad</em>) in order to engender their trust and enhance their engagement.</td>
<td>• Added a section to the intervention manual discussing the importance and rationale for incorporating these cultural norms into health-care manager interpersonal skills and interactions with clients.</td>
</tr>
<tr>
<td>Client engagement and client health-care manager interactions</td>
<td></td>
<td>• Added examples in the intervention manual of the type of health-care manager behaviors that demonstrate and reflect each of these cultural norms in their interactions with clients.</td>
</tr>
<tr>
<td>Assessment</td>
<td>• Health-care manager assessments need to include the systematic collection of cultural information that can be used to understand Hispanic clients' perspectives of their health problems, past and present help-seeking, and self-management behaviors, fears, and preferences for care.</td>
<td>• Added the DSM-5 Cultural Formulation Interview adapted for health problems to the assessment protocol used in the initial health-care manager sessions.</td>
</tr>
<tr>
<td>Clients' health education materials</td>
<td>• Client education materials need to be available in English and Spanish and include formats that are relatable, engaging, and relevant to a Hispanic audience.</td>
<td>• Added clients' health education materials available in Spanish from national organizations (American Diabetes Association, American Heart Association) and health-related fotonovelas.</td>
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Sources: Bartholomew et al., 2006; Tortolero et al., 2005
Step 5: Development of Implementation Plan

• **Objectives:**
  - Explore stakeholders’ views of the intervention and preferences for implementation (*What would it take?*)

• **Activities:**
  - Group discussions
  - Semi-structured qualitative interviews with stakeholders (N = 20)

• **Products:**
  - Implementation plans
Methods

• Purposive sample of 20 stakeholders
  • 5 primary care physicians, 5 mental health providers, 5 administrators, and 5 peer specialists

• Methods:
  • Vignette presentation of health care manager intervention
  • Semi-structured qualitative interviews, including a rank-ordering exercise of the top three intervention characteristics

• Analytical strategy
  • Directed content analysis:
    • Diffusion of innovations
    • Taxonomies of implementation strategies

Source: Cabassa et al., Med Care Res & Rev, 2015
Stakeholders’ Views of Health Care Manager Intervention

- Viewed as a useful, helpful, and necessary program

- Program benefits identified:
  - Improve care coordination and communication between providers
  - Individualize and holistic attention to patients’ health

- Key concerns:
  - How to train and supervise social workers
  - Added burden for mental health providers
Stakeholders’ Top Rankings of Intervention Characteristics

1. **Local relative advantage**: “evidence that it helps”

2. **Cost**: “if it’s not reimbursable, people are less likely to do it”

3. **Compatibility to the organization**: fit of intervention with organization’s services, and staff attitudes, responsibilities and duties

4. **Compatibility to Hispanics**: fit of intervention with patients’ culture, needs, and preferences
Intervention Characteristics Inform Selection of Implementation Strategies

Intervention Characteristics
- Relative Advantage
- Cost
- Compatibility to organization
- Compatibility to patients

Blended Implementation Strategies
- Financing
- Restructuring
- Education
- Planning
- Quality Management
- Cultural Adaptations

Intervention Characteristics Inform Selection of Implementation Strategies
Implementation Plan with Blended Strategies

- **Quality management strategies** to demonstrate local relative advantage

- **Financial strategies** to address cost concerns

- **Planning, education, and re-structuring strategies** to enhance compatibility to organization

- **Cultural adaptation strategies** to enhance compatibility to patient population
Discussion

- The collaborative intervention planning framework provides a systematic approach to:
  - Involve stakeholders in the intervention adaptation process
  - Blends cultural adaptations and implementation science
  - Focuses on adaptations that enhance fit and relevance of the intervention to local practice setting
Conclusions

• Bridging implementation science and intervention adaptations can help reduce the implementation gap

• Develop the science of adaptations:
  – Practical models and methods that engage stakeholders
  – Study the impact of adaptation on implementation-, services- and client-outcomes
  – Study links between adaptation and sustainability
Useful References


Useful References


• Cabassa, et al. (2014). Using the collaborative intervention planning framework to adapt a health care manager intervention to a new population and provider group to improve the health of people with serious mental illness. *Implementation Science, 9*:178.

Thank You // Gracias

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