Integrated Behavioral Health Models Improve Health for Low-Income, Hispanic Populations in Medically Underserved Areas at the US-Mexican Border

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Faculty Disclosure

The presenters of this session <u>have NOT</u> had any relevant financial relationships during the past 12 months.

Conference Resources

Slides and handouts shared by our conference presenters are available on the CFHA website at https://www.cfha.net/page/Resources_2019 and on the conference mobile app.

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Learning Objectives

At the conclusion of this session, the participant will be able to:

- Describe the effects of integrated behavioral health approaches on physical and mental health among a predominantly Hispanic population residing in south Texas.

- Identify the key facilitators and barriers to implementation of integrated behavioral health approaches in resource-constrained communities as assessed in the Si Texas portfolio.

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Learning Assessment

- A learning assessment is required for CE credit.

- A question and answer period will be conducted at the end of this presentation.

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Sí Texas: Social Innovation for a Healthy South Texas

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Advancing Public Health and Medical Research

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Yes to good health in Texas = ¡Sí Texas!

Evaluating IBH models to identify strategies that are effectively improving health outcomes in communities with high rates of poverty and the co-occurrence of depression, diabetes, obesity and associated risk factors.

Sí Texas Region

PROJECT TARGET AREA

Subgrantee Descriptions

Name	Integrated Behavioral Health Model	Setting
University of Texas Rio Grande Valley	Primary Care Behavioral Health	University family medicine residency with clinical partners
Nuestra Clínica del Valle	Primary Care Behavioral Health	Federally Qualified Health Center
Mercy Ministries of Laredo	Collaborative Care	Faith-based charity clinic
Hope Family Health Center	Collaborative Care	Non-profit charity clinic
REAL, Inc.	Reverse Co-location	Transportation focused organization with multiple clinical and community partners
Tropical Texas Behavioral Health	Reverse Co-location	Local Mental Health Authority
Texas A&M International University	Integrated Community Continuum of Care (integrated network)	University family medicine residency with clinical partners
University of Texas School of Public Health – Brownsville Campus	Integrated Community Continuum of Care (community chronic care model)	University with multiple clinical and community partners

Our Questions of Interest

- Did Sí Texas as a **collective effort** have an impact on health? Did we move the needle on changing health outcomes?

- What impact did each of these **different integrated behavioral health models** have with their own population?

- What factors that **support** and **challenge** the implementation of integrated behavioral health are **common across settings**?

Study Components

Impact Evaluation

- Rigorous design - RCT or QED
- Shared measures

Implementation Evaluation

- Qualitative study
- Facilitators/barriers

HbA1C   BMI   Hypertension   Depression   Quality of Life

Overview of Impact Findings

Who was in the study?

	Intervention (n=2254)		Comparison (n=1972)		p-value
	n	%	n	%	
Demographics					
Sex					0.99
Female	1569	69.8	1374	69.8	
Male	679	30.2	594	30.2	
Ethnicity					0.01
Hispanic	2082	92.7	1774	90.3	
Non-Hispanic	155	6.9	185	9.4	
Other	10	0.5	5	0.3	
Age, mean (SD)	48.9 (12.6)	--	49.5 (11.8)		0.10
Primary Language Spoken					<0.001
English	896	40.1	679	34.5	
Spanish	1306	58.4	1269	64.6	
Other	33	1.5	18	1.0	
Health, mean (SD)					
PHQ-9 score	8.4 (7.0)	--	7.0 (6.9)	--	<0.001
HbA1c	8.1 (2.3)	--	8.1 (2.2)	--	0.32
Systolic Blood Pressure	132.0 (19.7)	--	131.8 (19.2)	--	0.67
Diastolic Blood Pressure	79.0 (10.8)	--	79.0 (10.8)	--	0.94
BMI	33.6 (7.8)	--	33.5 (7.3)	--	0.85
Duke General Health score	61.2 (22.7)	--	66.2 (23.2)	--	<0.001

What did we do?

Analyzed pooled participant-level data across 8 subgrantee studies (n=4,226) to examine:

- Whether there were significant improvements in physical and mental health outcomes after 12 months

- And whether those improvements were associated with being in a Sí Texas intervention *(adjusted linear regression models)*

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What did we do?

Stratified analyses were conducted based on groupings identified *a priori* during study development:

- Those with and without a chronic condition (i.e., depression, diabetes, hypertension, obesity) at baseline

- Those with and without a known severe and persistent mental illness (SPMI) diagnosis at baseline

- Demographic characteristics (e.g., age, sex)

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What were the results?

On average, those who participated in a Sí Texas intervention group had *lower HbA1c levels and PHQ-9 scores* after 12 months compared to those in the comparison group.

Impact Measure	Analysis Sample Size	Adjusted Mean Difference of Intervention (-) Comparison β (SE)	p-value
PHQ-9	2574	-0.39 (0.18)	0.03
HbA1c	2174	-0.14 (0.06)	0.02

Note: all analyses adjusted for age, sex, ethnicity, language, baseline health outcome, number of comorbidities, county rate of uninsured, county prevalence of obesity

No significant differences detected for secondary outcomes: blood pressure & Duke quality of life

Significantly higher BMI in intervention group

◦ Possible contributing factors include the time frame of the study (12 months) and inability to control for relevant behaviors (e.g. medication) due to data availability

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What were the results?

Significant differences in HbA1c level at 12 months between intervention and comparison participants among:

Did participating in an IBH intervention have a particularly strong effect on health in some populations?

Subgroup	Analysis Sample Size	Adjusted Mean Difference of Intervention (-) Comparison β (SE)	p-value
Participants with Diabetes	**1681**	**-0.18 (0.08)**	**0.02**
Participants with Depression	**1135**	**-0.21 (0.09)**	**0.02**
Participants 49+ Years	**1315**	**-0.19 (0.08)**	**0.01**
Females	**1542**	**-0.21 (0.07)**	**0.004**
Participants with SPMI	**596**	**-0.24 (0.11)**	**0.02**

Note: all analyses adjusted for age, sex, ethnicity, language, baseline health outcome, number of comorbidities, county rate of uninsured, county prevalence of obesity

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What did we learn?

- There is evidence that employing enhanced *IBH services within health care settings in southern Texas leads to improvements in diabetes and depression among patients* compared to standard of care.

- The effect of IBH services on HbA1c is particularly strong among those *with an existing chronic condition.*

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Qualitative Implementation Findings

What did we do?

- Conducted qualitative study across 8 subgrantees *to identify common facilitators and barriers to implementing IBH regardless of setting, context, and type of program*

- 18 focus groups and 182 interviews conducted for subgrantee studies
  - At two time points: Midway and at end of study

Facilitators: What factors helped with implementation?

- Communication

- Workflow and use of physical space

- Staff/provider training

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Adoption Facilitators - Communication

"They [the different providers on the care team] started to really talk to each other and understand that they could communicate with each other twenty-four hours a day if they needed to… The doctors could IM each other, you know."

- In-person communication
  - Providers and participants
  - Provider and staff
  - Leadership

- Telephone and electronic communication
  - Data systems as communication mechanism

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"Part of what we are very adamant about is that we do not segregate behavioral health from all the primary care. He [the BH provider] sits along the same hall where all the other providers and all the exam rooms are, he sits right there"

Adoption Facilitators – Workflow and Use of Physical Space

- Adaptations to physical space

- Workflow and movement within physical space

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Adoption Facilitators – Staff/ Provider Training

"I think during the initial period there were a few things [that were challenging], and it was really training and retraining and kind of reinforcing what the goals were."

- Training on IBH model and implementation

- Training on roles and responsibilities for IBH implementation

- Training on communicating with patients

- Training on data systems

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Barriers: What factors challenged implementation?

- Communication

- Data systems

Adoption Barriers - Communication

"We learned that we have to get the people that are going to be involved in the program, need to be brought on board from day 1. There need to be open lines of communication regarding what the program is all about, what our goals are, how the staff are going to have to make some changes. You're going to have to redesign some of your processes."

- Communication about transitioning to the IBH model

- Communication related to workflow changes

- Communication about roles and responsibilities

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Adoption Barriers – Data Systems

"Not every clinic is going to have that skill set. They might have an IT department, they might have a support person for their EMR, but not necessarily."
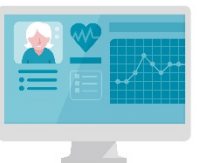
- Functionality
  - Data entry and sharing
  - Navigating within the system
  - Customizing data reports

- Limited tech support

- Health information sharing

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Conclusions

- Integrated care has an impact in a region with high need that is typically resource constrained.

- Important that models are adapted for the population.

- Integrated care is hard work - specific factors can support or challenge implementation *regardless of setting and model.*

- Findings reveal important implications for workflow, workforce development, and transformation of healthcare infrastructure.

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Thank you!

For more information, please contact

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Session Survey

Use the CFHA mobile app to complete the survey/evaluation for this session.

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