

# Enhanced Integrated Behavioral Health Model Improves Depressive Symptoms in Primarily Hispanic Population at a Free and Charitable Clinic in Texas

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# Faculty Disclosure & Acknowledgements

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

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# Conference Resources

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Slides and handouts shared by our conference presenters are available on the CFHA website at [https://www.cfha.net/page/Resources\\_2019](https://www.cfha.net/page/Resources_2019) and on the conference mobile app.



# Learning Objectives

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

- Identify major facilitators to implementing a successful, research study in a charitable clinic setting.
- List lessons learned in implementing a study of an integrated behavioral health model with volunteer providers.
- Identify factors that may contribute to improved depressive symptoms for individuals who are low-income or uninsured living in the border region of southern Texas.

# Bibliography/References


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2. Camacho, Á., González, P., Castañeda, S. F., Simmons, A., Buelna, C., Lemus, H., & Talavera, G. A. (2015). Improvement in Depressive Symptoms Among Hispanic/Latinos Receiving a Culturally Tailored IMPACT and Problem-Solving Intervention in a Community Health Center. *Community Mental Health Journal*, 51(4), 385–92. <http://doi.org/10.1007/s10597-014-9750-7>
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4. Bedoya, C. A., Traeger, L., Trinh, N.-H. T., Chang, T. E., Brill, C. D., Hails, K., ... Yeung, A. (2014). Impact of a Culturally Focused Psychiatric Consultation on Depressive Symptoms Among Latinos in Primary Care Psychiatric Services. Retrieved from <http://ps.psychiatryonline.org/doi/abs/10.1176/appi.ps.201300088?journalCode=ps>
5. Sumlin, L. L., Garcia, T. J., Brown, S. A., Winter, M. A., García, A. A., Brown, A., & Cuevas, H. E. (2014). Depression and adherence to lifestyle changes in type 2 diabetes: a systematic review. *The Diabetes Educator*, 40(6), 731–44. <http://doi.org/10.1177/0145721714538925>

# Learning Assessment

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- A learning assessment is required for CE credit.
- A question and answer period will be conducted at the end of this presentation.



# About the Sí Texas Study

# Health Challenges in the Rio Grande Valley

In the **Rio Grande Valley** in Southern Texas, studies have estimated that around:



**31%**

Have diabetes

Fisher-Hoch et al., 2012



**81%**

Are obese or overweight

Fisher-Hoch et al., 2012



**27.8%**

Of families are living below the poverty line

U.S. Census Bureau 2013-2017



**20.4%**

Have depressive symptoms

Davila, Rodriguez, Urbina, & Nino, 2014

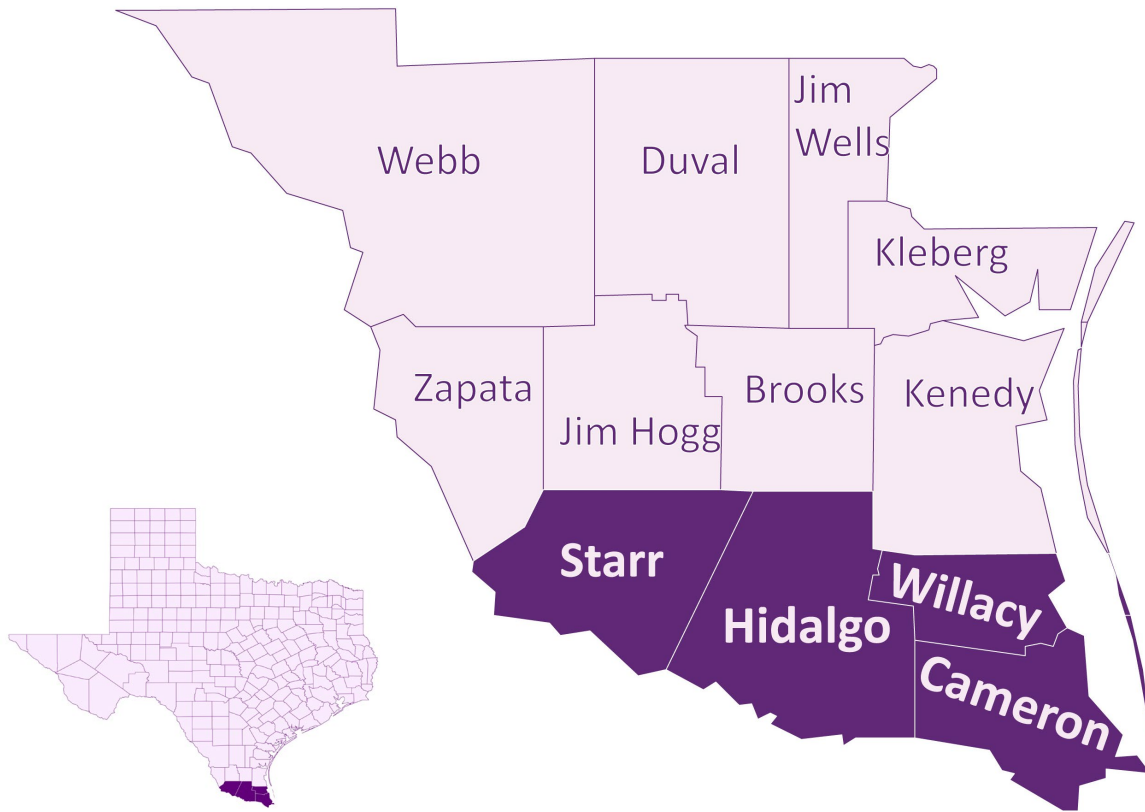


# About Sí Texas

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- Sí Texas (Social Innovation for a Healthy South Texas Evaluation) is a multi-site evaluation of **integrated behavioral health approaches** implemented by 8 organizations
- Launched in 2014 with a **\$10 million grant** by the Social Innovation Fund, a program of the Corporation for National and Community Service
- **Project goal:** To identify integrated behavioral health strategies that are effective in **improving health outcomes** in communities with high rates of poverty and the co-occurrence of depression, diabetes, obesity and associated risk factors

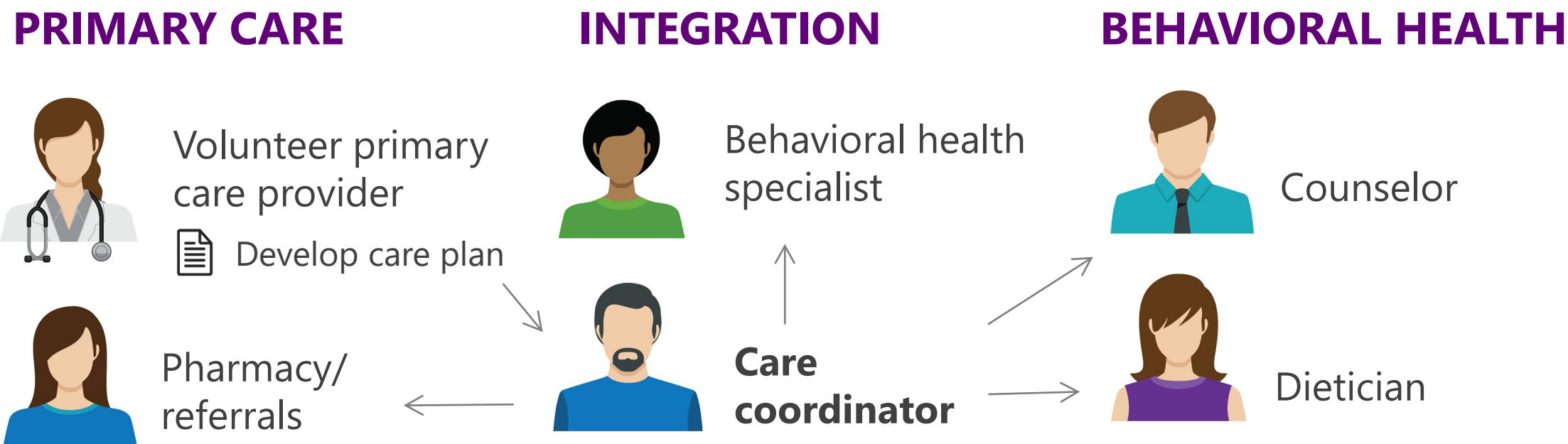
# Study Setting



- Hope Family Health Center is located in McAllen, Texas
- We provide **free** medical, counseling, and case management services to **uninsured** individuals in the Rio Grande Valley

# Our Integrated Behavioral Health Model

Main intervention components included a brief behavioral health screening by a specialist and warm handoffs by a care coordinator to other clinic services including counselors.



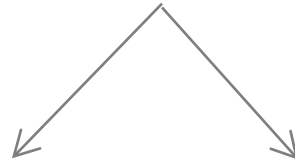
# Study Design

## Usual care

- Primary care
- Behavioral health care
- Salud y Vida services
- Episodic collaboration between providers



n=583



**1:1** Randomized



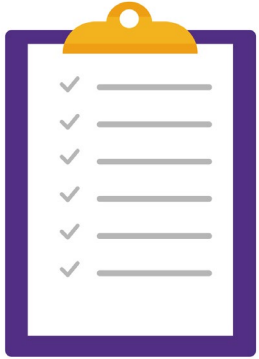
## Intervention Group

Usual care plus:

- Primary care
- Behavioral health care
- Salud y Vida services
- Brief intervention by behavioral health specialist
- Care coordination

# Eligibility & Outcomes

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## Eligibility

Cameron, Hidalgo, Willacy, or Starr County

Eligible for behavioral health services

Diagnosed with hypertension, obesity, diabetes, **and/or** moderate depression



## Outcomes

Blood pressure

Body mass index

HbA1c

Depressive symptoms

# Data Collection & Analysis

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## Outcome data collected at 6 and 12 months

### Analysis

- Unit of analysis: individual patient
- Intent-to-treat approach
- End-point effect of the intervention was estimated using generalized linear regression models
- Assessed confounding and effect modification
- Assessed whether the impact measure trajectories differ by intervention status (longitudinal)

# Implementation Evaluation Methods

## Data Collection

December 2015

October 2016

May 2018

**BASELINE**

**MID-POINT**

**END-POINT**



10 interviews



13 interviews



2 focus groups

**Program implementation data collected**

## Measures

- Target Population Reach
- Fidelity of Implementation
- Level of Integrated Behavioral Health
- Adoption Facilitators and Barriers
- Adherence to Collaborative Care Model
- Participant and Staff Satisfaction
- Sustainability and Lessons for the Future

**Analysis:** Double-coded transcripts for themes



# Did Our IBH Model Have an Impact?



# Study Sample

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**73.5%** Female

**50.9%** Married

**83.2%** Hispanic

**88.3%** Spanish-speaking

**98.5%** Hidalgo County

**50.9 years** Mean Age

**4.0** Median Baseline PHQ-9

Final sample size of **370** participants for end-point analyses; **172** intervention, **198** control

# Our Main Findings

On average, those in the intervention group had a PHQ-9 score that was **1.67 points lower** than those in the control group.

		Intervention Mean (SD)	Control Mean (SD)	Intervention – Control Adjusted Mean Difference (SE)	p-value
Systolic Blood Pressure	370	128.4 (18.3)	130.0 (20.3)	-2.47 (1.70)	0.15
Diastolic Blood Pressure	370	78.1 (7.1)	79.0 (8.5)	-0.93 (0.75)	0.22
HbA1c	146	8.0 (1.9)	7.7 (1.9)	-0.11 (0.24)	0.67
BMI	370	34.3 (7.7)	33.1 (6.9)	0.14 (0.22)	0.52
<b>PHQ-9 score</b>	<b>370</b>	<b>4.6 (5.4)</b>	<b>5.3 (6.2)</b>	<b>-1.67 (0.66)</b>	<b>0.01</b>

# Depression and Age Group

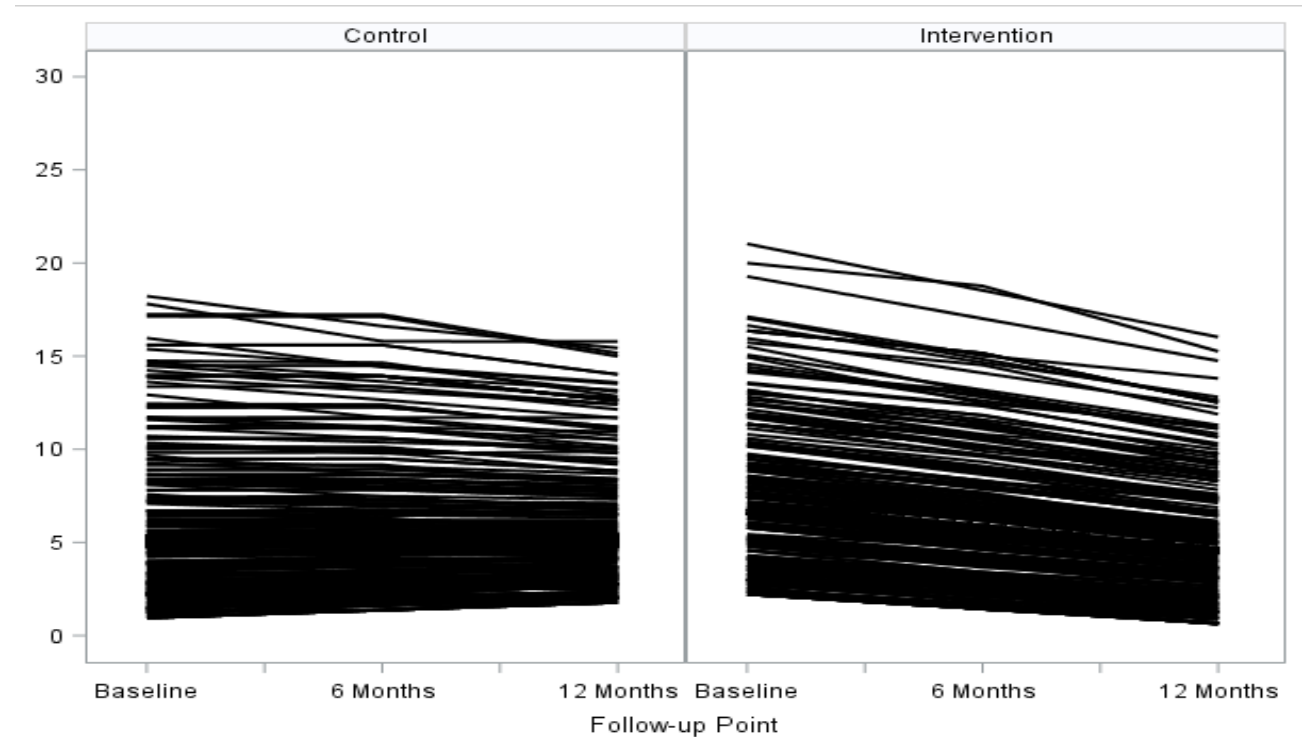
- There was a **significant interaction** found between intervention group and age (under 51 years/51+ years).
- When looking at just those who were in the older age group, intervention participants aged 51 years or older had a PHQ-9 score **2.08 points** lower than those in the control group on average.
- There was **no significant difference** in PHQ-9 scores of the intervention and control groups among those who were under 51 years of age.


Age Group	n	Intervention – Control Adjusted Mean Difference (SE)	p-value
51+ Years	206	-2.08 (0.81)	0.01
Under 51 Years	164	-1.34 (0.88)	0.13

# Longitudinal Analysis

Over time, intervention participants saw a **2.42 point greater improvement in PHQ-9** than the control group (SE 0.70, p-value 0.001).

The intervention group improved **FASTER** than the control group.

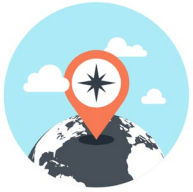




# What Did We Learn From the Implementation of Our Model?

# Adoption Facilitators

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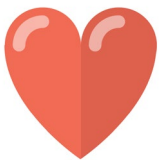
Physical co-location of services kept patients in-house longer



Improved communication across the clinic



Leadership buy-in



Clinic staff flexibility and relationships

“

*I think the presence of both [behavioral health and primary care] at the morning huddles has made a difference... There's just so much ease now to talk to each other and to actually communicate and be more assertive about advocating for the patient or for program change.*

*We have a strong leader but also a shared mode of leadership with a team-based approach ... and it's working, We've got everyone on board.*

# Adoption Barriers



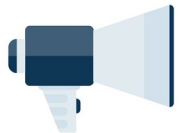
Communication with  
volunteer providers



Need for a more sophisticated  
data system such as an EMR



Staff retention and turnover



Sociopolitical environment



Transportation

“

*[Our data system] isn't as accessible or usable as it could be. It's tedious.*

*Transportation has always been an issue with our patients and that's so unfortunate that it's the transportation that holds them back from getting the care they need. So, we may not see them for months because they can't get to the clinic, or they ride a bike and it's 104 degrees outside.*





“

—  
The advice they gave me helped me a lot to overcome my depression. I didn't eat, I didn't sleep, but they helped me a lot here and now I do.





“

—  
I think the patients who are involved in the program have really benefited from understanding and seeing that it's more than just their blood sugar. It's affects everything. They get their sugar down and they're feeling better overall.



# Sustainability and Lessons Learned

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Challenges in finding funding to sustain model



Program replication and scalability



Staffing and training

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*We are trying to prove that the program has given us good outcomes and secure funding to continue.*



# Conclusion & Implications for Practice

# Our Conclusion

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The implementation of Hope's enhanced IBH program in a charitable clinic setting along with the significant improvements in PHQ-9 show that such an approach is **feasible** and has **potential benefits** for uninsured patients living at or below 200% of the FPL in a US-Mexico border community.

# What Did We Learn?

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- As a free and charitable clinic, our culture is something we hold very close
- Culture and mission must be fostered and protected during significant changes
- Being mission driven led to success
- Buy-in and the 'why' of the new process had to be explained
- Not everyone was up for the challenge, including staff, volunteers, board of directors, and patients
- This is the best way to serve our clients

# What Are We Doing Now?

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- 100% Fully integrated
- Continuously searching for sustainability tools for integration
- Sharing our stories
- Teaching others about integration
- Our patients are teaching each other
- We are improving health through integration and education

# Implications for Practice in the Field

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- Providing team based care in a safety net free clinic is possible, does improve health, and can be achieved over time.
- Client and provider buy-in is a must
- Depression symptoms can be improved with care coordination, behavioral health intervention, and primary care services



# Q&A



# Thank You!

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## Questions?

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Hope Family Health Center Final Sí Texas Evaluation Report:

[https://www.nationalservice.gov/sites/default/files/evidenceexchange/MHM\\_Hope\\_Final\\_rev\\_062519\\_508.pdf](https://www.nationalservice.gov/sites/default/files/evidenceexchange/MHM_Hope_Final_rev_062519_508.pdf)



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

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**Thank you!**

