

Evaluation of childhood developmental milestones and the warning signs of autism as an effective educational and public health outreach tool for *promotoras* in South Texas

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Goal: The goal of this project is to equip *promotoras* in the Lower Rio Grande Valley with knowledge about early childhood developmental milestones, autism awareness and public health outreach tools that can be applied within the Latino communities of South Texas.

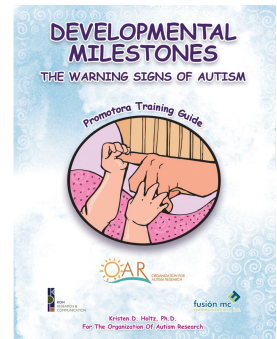
Questions for Discussion:

- 1) What are the barriers to autism diagnosis among Latino children compared to Caucasian children?
- 2) Are CHWs effective in promoting health among residents of South Texas?
- 3) Is there a need for additional autism educational interventions for Latino families in South Texas?

- Data from the Texas Educational Agency and the Health Resources and Services Administration found that there are fewer autism diagnoses in schools with higher rates of Hispanic children.¹
- In 2010, the U.S. Census Bureau showed that Cameron and Hidalgo counties consisted of 88.1% and 90.7% persons of Hispanic or Latino origin, respectively
- The South Texas border is affected by a shortage of physicians, with only 110 physicians per 100,000 people, half of the nation’s average.

Phase I: Training for 58 community health workers (CHWs) from Cameron and Hidalgo counties in South Texas using a curriculum developed by the Organization for Autism Research (OAR). Training was conducted in Spanish.

- Research shows that *promotoras* are effective at increasing knowledge concerning general health practices among ethnic minorities.²



Demographics

	N	Percent
Ethnicity		
Hispanic	57	98.3
White	1	1.7
Gender		
Male	4	7.3
Female	51	92.7
Age Range		
50+	32	55.2
40-49	19	32.8
30-39	2	3.4
18-29	5	8.6

Level of Education	N	Percent
Elementary	2	4
High School	19	34
Technical School	16	29
License	3	5
College	12	21
Post-graduate	4	7

Length serving as a promotor(a)		
Years	N	Percent
<1	8	14
1-5	27	47
6-10	8	14
11-15	8	14
16-20	6	10
>21	1	2

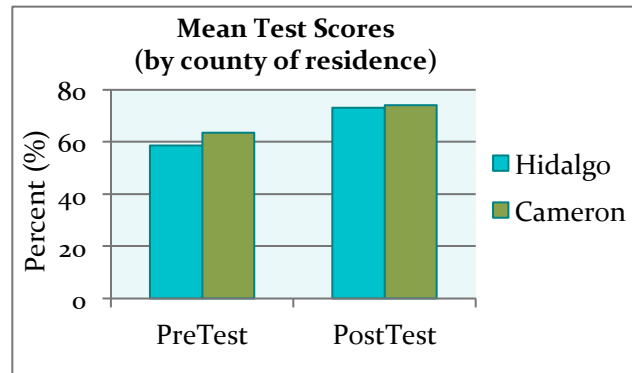
CHW’s were tested using a survey with 10 content-specific questions on early developmental milestones, autism and methods of public health outreach before and after the training.

Phase I Preliminary Results (n=58)

- Mean Pre-Test score = 60.5%
- Mean Post-Test score = 73.6%

Phase I preliminary results by county of residence

County	Pre-Test	Post-Test
Hidalgo	58.7%	73.1%
Cameron	63.5%	74.1%



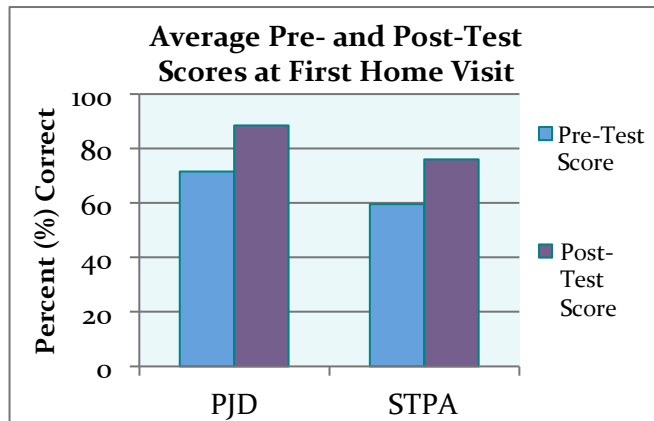
- ❖ 56 out of 56 (100%) CHWs agree that it is important for Latino parents to learn about childhood developmental milestones
- ❖ 34 CHWs (58%) know someone with a child who has been evaluated for developmental delays
- ❖ 10 CHWs (17%) previously participated in a childhood developmental milestones training

Phase II: Ten CHWs who underwent Phase I training educated 51 Latino families in the community about childhood developmental milestones and the warning signs of autism. CHWs administered an 8-item questionnaire before and after the educational material was presented, at each home visit.

Phase II Preliminary Results (First Home Visit)

8-item questionnaire		
	PJD*	STPA**
Pre-Test	71.5	59.6
Post-Test	88.5	76

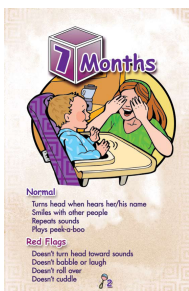
*PJD serves predominantly Cameron County
 **STPA serves predominantly Hidalgo County



- Follow-up visits with families took place two months after the initial visit.
- Observations at second visit:
 - Parents were more alert about their child's development at second home visit
 - Families were motivated to share the information with others

Phase III: Focus groups with CHWs to discuss and evaluate effectiveness of training and outreach tools. (To be scheduled)

- Discuss concerns with education materials or curriculum
- Discuss questions brought up by the parents/caretakers
- Evaluate issues that came up during the intervention



References:

1. Palmer RF, Walker T, Mandell D, Bayles B, Miller CS. Explaining low rates of autism among Hispanic schoolchildren in Texas. *American Journal of Public Health*. 2010;100(2):270–272
2. Andrews J, Felton G, Wewers ME, Heath J. Use of community health workers in research with ethnic minority women. *Journal of Nursing Scholarship*. 2004; 36:4, 358-365.