


Latino Nutrition and Chronic Disease Prevention

Multidisciplinary program to enhance experiential learning opportunities for underrepresented students



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Presenter Disclosures

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(1)The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

“No relationships to disclose”

Project Team



Funder:
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Co-Principal Investigators:
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Collaborating Partners:
 Women, Infants, and Children (WIC) Program Clinics at:

- Long Beach Department of Health and Human Services
- Long Beach Memorial Medical Center,
- St. Mary's Medical Center



Background

- Obesity prevalence has more than tripled for US children and adolescents during the past three decades.¹⁻⁵
- Prevalence among Latino children ages 2-5 more than doubled between 1976-1980 and 2007-2008 from 5% to 10.4%.⁶
- Poor nutrition and other determinants associated with childhood obesity are overlooked within college courses.
- There is a lack of student experiential opportunities within some institutions of higher learning.



Purpose

1. To prepare faculty and students for careers to support USDA's strategic 'Nutrition and Health' goals through academic advising and experiential learning.
2. To establish a permanent Latino Nutrition & Chronic Disease Prevention course at CSULB.



Objectives

University


1. Establish a permanent Latino Nutrition and Chronic Disease Prevention Course within Health Science and Nutrition at CSULB.
2. Provide (8) faculty training for culturally relevant student advising.
3. Provide (14) students with experiential learning opportunities to conduct community based research.

Community

4. Engage more than (180) Latina Women, Infants, and Children (WIC) recipients in health education, motivational interviewing, and case management to promote healthy eating to decrease childhood obesity.



Student Experiential Learning



SCHEs


Student Community Health Educators

Qualifications:

- o First generation educated
- o Bilingual and bicultural
- o Enrolled in Research related fields (Nutrition/ Health Science)
 - 2 graduates/ 4 undergraduates per year
 - 1 Graduate Scholar position



Recruitment and Interview Process


- o Recruited on campus
- o Application, personal statement, and letters of reference
- o Panel interviews by 3-4 project staff



Role of SCHEs

- o One year commitment (10-15 hrs/ wk)
- o Attend all project trainings/ meetings
- o Participant recruitment
- o Health education
- o Data/ case management
- o Materials development
- o Abstracts and presentations



Training Topics

- Latino Culture and Health
- Community Based Participatory Research
- Motivational Interviewing
- Breastfeeding and Maternal Infant Health
- Nutrition for Infants and Toddlers
- Institutional Review Board Guidelines
- Community Based Intervention Strategies and Procedures
- Importance of Evaluation



SCHE Benefits

One Graduate Scholarship

- Full tuition
- Parking and fees
- Travel opportunities
- Lap-top computer
- Monetary stipends

Experiential learning

- Community Based Participatory Research
- Project implementation
- SPSS data entry/management
- Abstract development

Career development


- Mentorship
- Networking
- Presentations

Travel Opportunities

- Attendance local/national conferences

Monetary stipends

Internship credits



Travel Opportunities

- American Public Health Association Conference, Denver, CO
- Minorities in Agriculture Natural Resources and Related Sciences, Annual Career Fair and Training Conference, Orland Fl., Overland Park, KA
- Long Beach Research Symposium, CA
- AHRQ, American College of Epidemiology Minority Affairs Committee Health Services Research and Health Disparities Workshop





Community Based Research Health Education



Participants

Target: More than 180 participants

Eligibility Requirements

- o Latino/Hispanic females
- o 18 years of age and older
- o WIC recipient
- o Over 20 weeks pregnant

Intervention

- o 5 one-hour educational sessions
- o 9 educational classes (1-2 per session)
- o 1 follow-up interview
- o Data collection at each session
- o Incentive for participation



Setting

- o Recruitment was conducted by trained SCHEs at 4 WIC locations in Long Beach, CA
- o Informed consent was obtained and demographic questionnaires were completed before session 1
- o SCHE made appointments for in-home or at WIC session



Education Sessions

- Pre-knowledge test
- Health education session
- Motivational interviewing
- Post-knowledge test
- Participants received:
 - Supplemental educational materials
 - \$10 dollar incentives
 - Small gifts (diapers, cereal, baby items)



Case Management

- Students were expected to recruit and complete sessions with more than 15 participants
- Implement education sessions in 2-to-3 sittings at participant homes/ WIC clinics
- Collect and submit participant data
- Follow-up via telephone to schedule remaining sessions
- Conduct three month telephone follow-up
- Conduct data entry and cleaning



Educational Curriculum

Session 1: Prenatal Care

- Prenatal Care
- Vitamins and Minerals
- Recommended Weight Gain
- Maintaining a Healthy Weight
- Gestational Diabetes



Session 2: Breastfeeding


- Benefits for the Mother and Baby
- 4 Breastfeeding Positions
- Benefits of Expressing and Saving Milk





Session 3: Proper Nutrition

- Child Nutrition from Birth to the 1st year
- Breast Milk
- Introduction of Liquids and Solid Foods
- Introducing New Foods
- USDA Nutritional Guidelines

Curriculum Continued



Session 4: Healthy Lifestyles

- Importance of Exercise in the Perinatal Period
- Well-being and Losing Weight
- Eating Healthy
- Being Active
- Parental Role Modeling
- Benefits of an Active Child
- Recreational Activities for Families

Session 5: Appendix

- Review of Key Topics
- Healthy Weight
- Being Active
- Body Mass Index
- What are Food Allergies
- Most Common Food Allergies

Student Reflections


Three important things learned through participation in the project....

- The need for health education in the Latino community
 - The effectiveness of one-on-one education
 - The importance of family values in the Latino community
 - The importance of breastfeeding
- I learned how to manage my time
 - I gained confidence in my presentation skills
 - The importance of a pursuing a graduate degree
 - My interest in maternal and child health

Other Reflections

- It has been an amazing experience, I feel like I have grown tremendously as a professional
- I am a better advocate for my community
- I gained knowledge and insight regarding community health interventions, CBPR, and prenatal health
- I am glad that I learned how to use SPSS
- I have learned skills for curriculum development, data analysis and the grant writing process.

Preliminary Results
Participant Demographics
Pre-to-Post Knowledge Increases



Progress

- o 191 participated in session 1
- o 173 participated in session 2
- o 162 participated in session 3
- o 157 participated in session 4
- o 130 participated in the optional appendix session



Measures


- o Demographics
- o Prenatal health
- o Breastfeeding history
- o Access to healthcare

Increases in knowledge

- o Prenatal care
- o Breastfeeding
- o Nutrition
- o Physical activity

Behavior Change

- o Breastfeeding initiation
- o Breastfeeding duration
- o Food introduction
- o Role modeling physical activity



Demographics

	n	%	Range
Age	191	27.18	18-41
Preferred language			
Spanish	168	88.4%	
English	17	8.9%	
Other	5	2.6%	
Nativity			
United States	72	37.7%	
Mexico	101	52.9%	
South America	16	12.7%	
Other	2	1.0%	
Mean years in U.S. (foreign-born)	118	11.87	1-30
Mean weeks of pregnancy	187	30.67	20-30

Demographics

	n	%	Range
Number of children	190	1.17	0-8
Marital status			
Married/living with partner	137	71.8%	
Separated/divorced/widowed	16	8.4%	
Single (never married)	38	19.9%	
Education level			
Graduate degree	1	.5%	
College degree	14	7.4%	
High school diploma/college	90	47.4%	
Less than a high school diploma	85	44.7%	
Employment			
Permanent employment	43	24.2%	

Insurance/Health

	n	%	Range
Type of Health Insurance			
MediCal Insurance	162	84.8%	
MediCal Insurance (children)	106	65%	
Employer based insurance	17	11.3%	
Prenatal Care	187	100%	
Transportation to Visits			
Public transportation	55	28.9%	
Walk	47	24.7%	
Personal Car	110	57.9%	
Rides (family, friends, clinics)	40	21%	
Gestational diabetes	13	7%	
Attended childbirth classes	38	20.3%	

Demographics

	n	%	Range
Youngest child/breastfed	89	47.1%	
Breastfeeding duration(months)	95	7.3	0-24
Formula Feeding	97	55.5%	
Food introduction (months)	97	3.4	1-11
Breastfeeding intention			
Breast milk only	102	54%	
Formula feed only	6	3.2%	
Both breast milk and formula	66	34.9%	
Don't know	15	7.9%	



Pre-Post Intervention Changes

Overview

Pre-Post Changes	Mean Difference	Std Deviation	t	Sig. (2-tailed)
Intervention knowledge	-1.74479	7.49537	-3.226	.001
Diet during pregnancy knowledge	-1.38743	2.22820	-8.605	.000
Weight and pregnancy knowledge	.00521	1.55357	.046	.963
Breastfeeding knowledge	-1.42045	2.23848	-8.418	.000
Baby nutrition knowledge	-1.10169	2.31616	-6.328	.000
Activity knowledge	-2.06509	3.13798	-8.555	.000
Allergies knowledge	.41045	1.77371	2.679	.008
Recreational activities knowledge	.50296	2.34806	2.785	.006
Nutrition knowledge	-.24852	1.26200	-2.560	.011

Next Steps

- o Finalize educational sessions
- o Finalize 3 month telephone follow-up
- o Conduction data analysis
 - o Assess pre-post knowledge
 - o Assess behavior change
 - o Breastfeeding
 - o Nutrition
 - o Physical activity
- o Asses differences b/w age groups, country of birth, educational level and retention





Thank you!

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