

USING QUANTITATIVE AND QUALITATIVE DATA TO INFORM THE DESIGN OF A TAILORED HEALTH LITERACY INTERVENTION: TRABAJANDO JUNTOS/WORKING TOGETHER PROGRAM

Valerio, M.A. – University of Michigan School of Public Health

Ghaddar, S. – University of Texas-Pan American

Talavera-Garza, L. – University of Texas-Pan American



Disclosure

The authors have no financial or other conflicts to disclose.

Overview

Background

Study Aims

Methods

Phases I-III Findings

Design of the Tailored Program

Summary

Background: Health Literacy and Obesity

- Health disparities disproportionately impact Hispanic groups in the US.
- Obesity and limited health literacy are major public health problems.
- More than one-third of US adults are obese resulting in an estimated annual costs of \$147 billion.
- A large proportion of the US adult population has limited health literacy with estimated costs of \$106-236 billion annually.
- Paucity of tailored interventions to address health literacy and obesity in Latino adults.

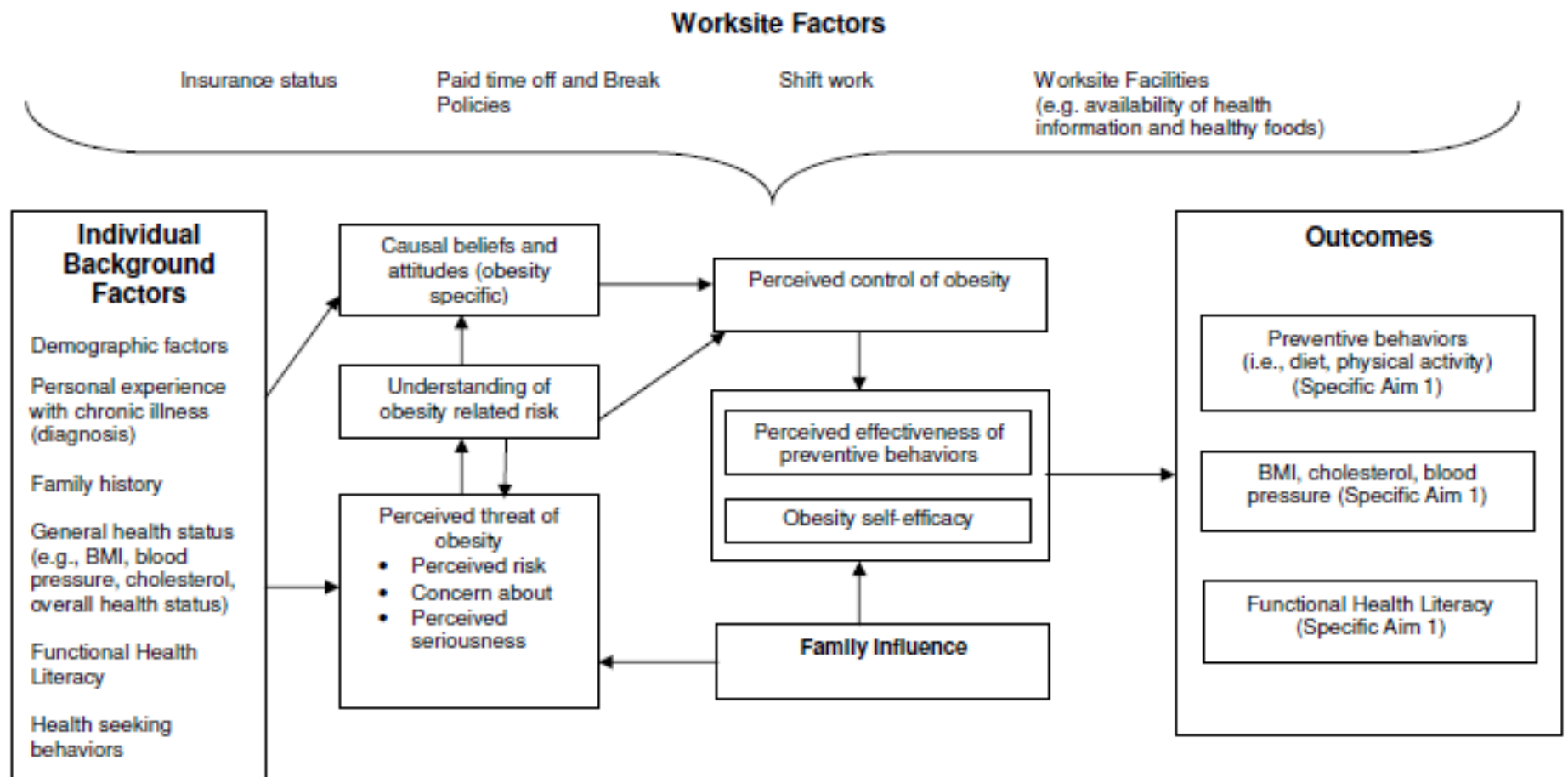
Study Aims

- To design a tailored behavioral intervention focused on promoting health literacy as a strategy for obesity control and prevention.
- To address individual- and structural-level factors influencing obesity in the Hispanic manufacturing worker population through a culturally-tailored intervention: Trabajando Juntos/Working Together.

Designing a Health Literacy Intervention

- 3-Phase study design approach
 - Phase I assessing the needs of the population
 - Phase II elucidating needs and program feasibility
 - Phase III exploring manufacturing employer support and feasibility
- Theoretical Underpinnings
 - Health Literacy
 - Social Cognitive Theory
 - Theory of Reasoned Action
- Approach
 - Cultural Tailoring and Adult Education strategies

Designing a Health Literacy Intervention



Methods

- Partnership building
 - South Texas Manufacturers Association (STMA)
 - Texas Manufacturing Assistance Center (TMAC)
 - Interdisciplinary group
- Mixed methods approach
 - Phase I: Quantitative
 - Phases II and III: Qualitative
- Data Analysis
 - Phase I: Descriptive and Logistic Regressions
 - Phases II and III: Grounded Theory



Phase I: Assessing the needs of the population

- 228 one-on-one interviews (English and Spanish) at eight manufacturing plants
- Measures based on Behavioral Risk Factor Surveillance System and the National Health Interview Survey
- Short Test of Functional Health Literacy in Adults (S-TOFHLA)
- Body mass index (BMI) was calculated based on objective weight and height measurements
- Point-of-care blood tests and measures (Hemoglobin A1c, cholesterol, and blood pressure)



Phase I: Assessing the needs of the population

- Significantly higher rates of obesity and lower rates of healthy behaviors, health care coverage, and utilization of health screening services.
- Higher levels of health literacy were significantly associated with decreased odds of obesity.
- Health care coverage significantly predicted health care access, utilization, and uptake of prevention and screening services.



Phase II: Elucidating needs and program feasibility

- Purpose
 - To identify health-related issues and practices at the personal, work, and community levels
 - To identify worksite health promotion intervention components
- Five focus groups were conducted (19 males and 7 females)
- 3 English and 2 Spanish groups
- Discussion guide was used
- Grounded theory approach guided the analysis of data

Phase II: Elucidating needs and program feasibility

Dominant themes:

- Structural factors (e.g., shift and break schedules, sick leave policies) were perceived as a challenge to maintaining a healthy lifestyle.
- Although physicians were among the most trusted sources of health information, participants reported difficulty understanding lab results due to inadequate communication with their health care providers.
- Program content and delivery should account for the worksite structure and personal family constraints.

Phase II: Elucidating needs and program feasibility

- Recommendations for intervention characteristics included:
 - Scheduling of brief health sessions during work hours
 - Inclusion of incentives such as free clinical lab tests
 - Use of text messaging to inform participants of community health events and to deliver brief health messages

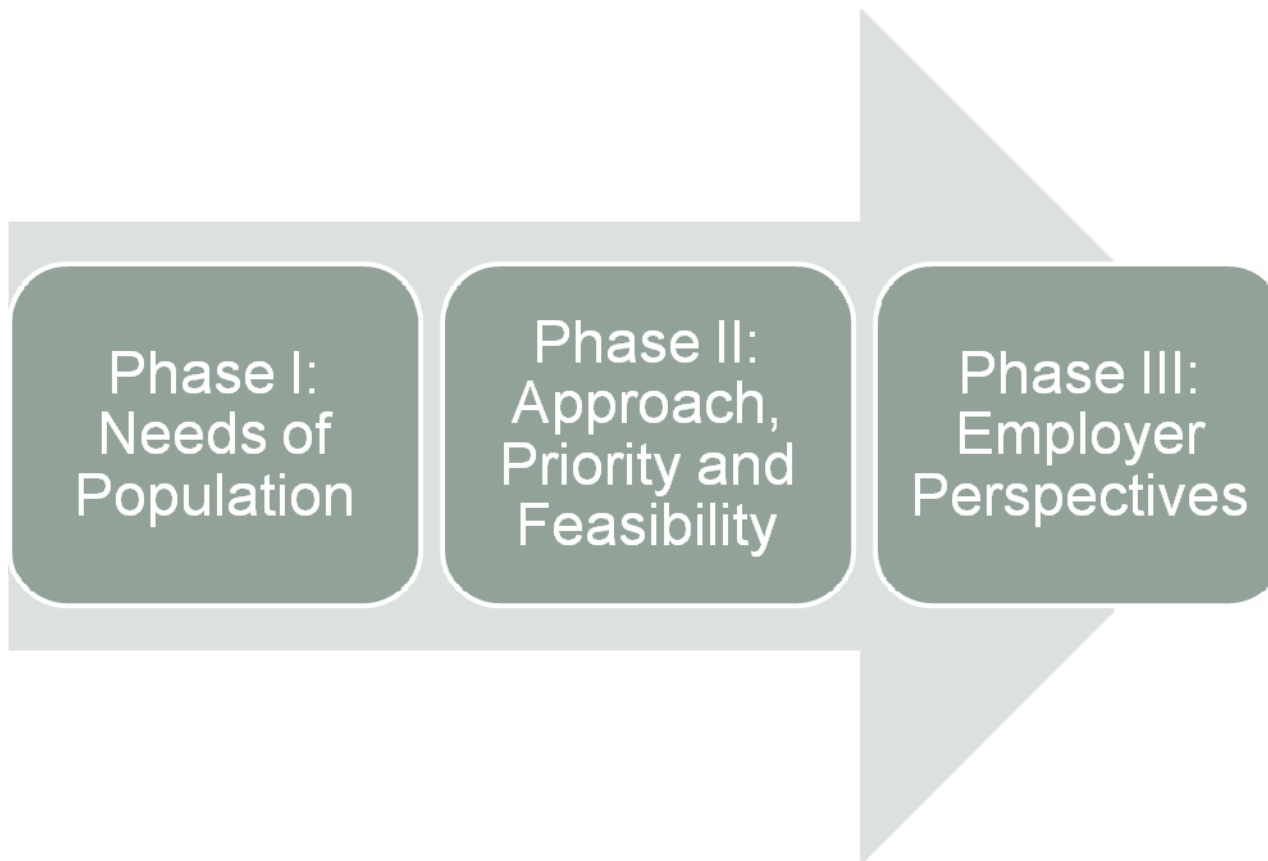
Phase III: Exploring employer support and feasibility

- Purpose: to assess the feasibility of introducing worksite health promotion interventions from the employers' perspective
- Key informant interviews with 20 manufacturing managerial-level personnel were conducted
- Discussion guide was used
- Grounded theory approach guided the analysis of data

Phase III: Exploring employer support and feasibility

- 25% of the companies reported offering or previously offering on-site health initiatives.
- Seventeen of the 20 employers interviewed expressed an interest in partnering.
- Motivation for company participation included access to expertise and materials in health promotion and the potential for healthier employees and improved productivity.
- Monthly group sessions were identified as most conducive to worksite schedules and needs and as the preferred mode of delivery.

Design of the TJWT Program



Tailored health literacy intervention



Key Design Elements: TJWT Program

- Focused on building of health literacy skills
 - Navigation of the health care system
 - Numeracy
- Theoretically informed
- Culturally tailored
 - Addressing beliefs and values
 - Lotería imagery
 - Language
 - Promotion of local foods and physical activities
 - Working within the worksite needs



Key Design Elements: TJWT Program

TRABAJANDO JUNTOS/WORKING TOGETHER TO ADDRESS OBESITY THROUGH HEALTH LITERACY

Module	Tailored to Inform Gaps	Topic	Teaching Methods
INTRO	Racial/ethnic disparities in health literacy and obesity rates at the national and local levels	Introduction to the Program <ul style="list-style-type: none"> Overview of program content What is health literacy and how it can help improve health and address obesity Informed consent and baseline data Collection 	<ul style="list-style-type: none"> Promote Buy-in Overview of program content Goal setting: overarching goal for program – review at each session
1	Focus group (FG) findings indicating a need to understand lab results and issues of numeracy	Know Your Numbers (Conozca Sus Numeros) <ul style="list-style-type: none"> BMI, blood pressure readings, HbA1c, and cholesterol 	<ul style="list-style-type: none"> Didactic Tailored review of lab results Feedback on acquired knowledge
2	Survey results indicating significantly higher rates of obesity in sample relative to county and state rates	Understanding Obesity <ul style="list-style-type: none"> What is obesity Factors contributing to obesity Health risks due to obesity You can do something about obesity 	<ul style="list-style-type: none"> Didactic Eliciting experiences Problem solving through review of tailored testimonials Feedback on acquired knowledge
3	Survey findings indicating low levels of physical activity and qualitative findings indicating need for physical activity and introduction of strategies to engage in physical activity given worksite environment	Physical Activity (Indoor) <ul style="list-style-type: none"> 10-minute physical activity routines Ball exercises Taichi 	<ul style="list-style-type: none"> Didactic Eliciting experiences Problem solving with case study Feedback on acquired knowledge
4	Survey findings indicating low intake of fruits and vegetables and FG findings showing employees' interest in nutrition components.	Food and Nutrition <ul style="list-style-type: none"> Understanding nutrition labels Strategies to improve the quality of your food intake at the worksite 	<ul style="list-style-type: none"> Didactic Eliciting experiences Problem solving with case study Feedback on acquired knowledge
5	Challenges identified in employee focus groups and by Healthy People 2020 objectives	Navigating the Health Care System <ul style="list-style-type: none"> What to expect during a health care visit Patient-provider communication Understanding health care coverage (private insurance and federal programs) 	<ul style="list-style-type: none"> Didactic Eliciting experiences Role playing Problem solving with case study Feedback on acquired knowledge
6	Qualitative findings indicating worry and need to address intergenerational health needs	Program Review <ul style="list-style-type: none"> Health literacy and obesity prevention review Reinforcement of key messages and strategies The next generation: family health Follow-up data collection 	<ul style="list-style-type: none"> Program Summary Review of Key Strategies
	Qualitative and quantitative findings indicating lack of information of community based resources	At each session: Useful Resources <ul style="list-style-type: none"> Credible internet and community based resources Glossary of commonly used terms Tailored calendar of health events Community resources for the uninsured (free and reduced-fee clinics and community health centers) 	<ul style="list-style-type: none"> Resources
Note: Theoretical frameworks guiding intervention design include social cognitive theory, adult learning theory, theory of reasoned action, self-regulation (self-efficacy and outcome expectations), and empowerment theory. Sessions will be conducted by community health workers.			

Summary

- Health literacy interventions should incorporate assessment of population needs and priorities.
- Cultural tailoring will assist in design of more appropriate health literacy interventions.
- Theoretically driven interventions will allow for identification of the association between health literacy and illness prevention over time.
- TJWT intervention was designed to address multiple determinants of health for the elimination of obesity and health literacy disparities.

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