Building Partnerships to Improve Health Education and Healthy Behaviors in Rural Low-Income Communities During the Covid19 Pandemic

Liana Gefter MD MPH[1], Nancy Morioka-Douglas MD MPH[1], Ashini Srivastava MBBS MPH[1], Ileana Ponce-Gonzalez MD MPH[2], Sonal Patil MD MSPH[3], Can Angela Jiang MD[1], Eunice Rodriguez DrPH[4]

[1]Division of Primary Care and Population Health, Stanford University School of Medicine, [2]Clinical Assistant Professor, Health Services School of Public Health- University of Washington; Executive Director Community Health Workers for Migrants and Refugeess, [3]University of Missouri Family Medici Residency Program, [4]Division of General Pediatrics, Stanford University School of Medicine

Background

- Youth in rural communities disproportionately challenged by school closure during Covid19 pandemic.
- To engage youth in health education and behavior change, Stanford Youth Diabetes Coaches Program (SYDCP) adapted for remote implementation in two rural communities in WA and MO, one of which serves children of migrant farmworkers.

Community Partners

- High Schools: Monett High School, Monett, Missouri. Granger High School, Granger, Washington
- University of Missouri Family Medicine Residency Program; Community Health Educators
- University of Washington and Community Health Worker Coalition for Migrants and Refugees (CHWCMR)

Objectives

1. To evaluate impact of Stanford Youth Diabetes Coaches Program's remote implementation on participants' health knowledge, beliefs, and behaviors.
2. To assess efficacy of implementation by community health workers and community health educators

Project Description

We partnered with family medicine physicians, community health workers (CHW) and community health educators (CHE) in rural communities. CHWs and CHEs implemented SYDCP to teach healthy high school students to become coaches for family members with diabetes. 8 classes were taught remotely using Zoom. We assessed program impact on health knowledge, beliefs, and behaviors, and analyzed participants' responses to pre and post surveys using paired T tests.

Outcomes

Figure 1: Participant Demographics

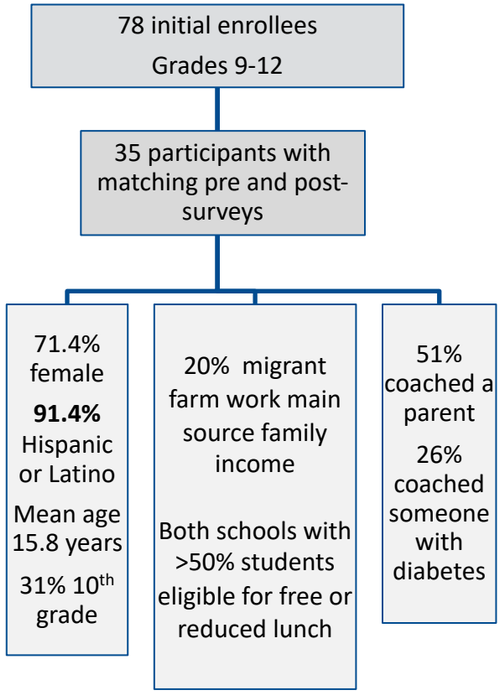

Table 1: Change in participants' health knowledge, beliefs, and behaviors after program participation N=35

Health Outcome	Pre-test	Post-test	P value
[1]Health knowledge	2.11	5.29	**<.001**
[2]Health mindset	3.50	3.94	**.041**
[3]Increased consumption of fruits and vegetables	2.15	2.59	**.045**
[4]Decreased consumption of fatty foods	1.88	1.44	**.020**
[5]Talking about Health	3.35	3.71	**.008**
[6]Understanding of health	3.82	4.24	**<.001**
[7]Self-efficacy	11.21	12.06	**.022**
[8]Problem Solving	2.56	3.09	**.005**
[9]Patient Activation (PAM ®10) Score	52.92	65.55	**.002**

Score range: [1]0-8, [2]1-6, [3]0-5, [4]0-5, [5]1-5, [6]1-5, [7]4-16, [8]1-4, [9]0-100

Outcomes

- Of 35 students that completed pre and post-surveys, majority Hispanic, female, 10th graders with mean age 15.8 years and coached a parent (Figure 1)
- Comparison of pre and post surveys demonstrated significant improvements in health knowledge, health beliefs and health perceptions.
- 97% reported making a healthy lifestyle change as a result of program participation

Lessons Learned

- Remote implementation feasible and beneficial
- Inequitable digital access may be barrier to participation
- Evaluation incomplete with <50% completing pre- and post-surveys

Recommendations

- Study demonstrates remote health promotion programs taught by CHWs and CHEs have potential to increase health knowledge, beliefs, and behaviors of adolescents in rural communities.
- CHWs and CHEs should be utilized as SYDCP instructors to support most vulnerable youth in rural communities.

Funding Sources

Small Grant Pilot program , Latino Center for Health, University of Washington, Community Health Worker Coalition for Migrantes and Refugees, anonymous private donors and a grant from Goldman Sachs Gives, at the request of R. Martin Chavez and Collin Gage