

SNAP-Ed Toolkit

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Stanford Youth Diabetes Coaching Program

Stanford University School of Medicine

Overview

The Stanford Youth Diabetes Coaches Program (SYDCP) facilitates partnerships between medical training programs and high schools serving youth from socioeconomically disadvantaged and underrepresented minority communities. The SYDCP is a “train the trainer program” in which medical residents (and other health professional trainees) train high school students to coach family members with diabetes or other chronic illnesses. The program consists of 8 tightly scripted, interactive PowerPoint based lessons that incorporate evidence-based approaches to chronic disease management, highlighting healthy eating and physical activity. The curriculum is based on Kate Lorig’s Adult Chronic Disease Self-Management Model, Social Cognitive Theory, and peer health coaching, and is designed to address the burden of chronic disease in underserved communities by focusing on health knowledge, communication skills, goal setting, problem solving, and healthy behaviors. **Please Note:** Medical nutrition therapy is not allowable for SNAP-Ed. We strongly recommend you partner with a healthcare professional to provide those components of this intervention. Components focused on healthy eating and physical activity are appropriate for SNAP-Ed. **Target Behavior:** Healthy Eating, Physical Activity and Reduced Screen Time **Intervention Type:** Direct Education

Intervention Reach and Adoption

SYDCP is designed for high school students in the 9th-12th grades and their families from underrepresented minority and/or low-income communities. SYDCP has been successfully implemented in this setting as a mandatory part of the traditional school day, an elective after school program, a remote offering, and part of a summer camp. SYDCP has been successful in both low-resourced urban and rural settings through in-person and remote formats. Through remote-adapted class options, SYDCP can be offered in rural areas where it is difficult for instructors to be present for in-person classes. Over the last 10 years, SYDCP has reached approximately 1,000 youth participants from 30 high schools in 12 US states and partnered with 17 medical residency programs and the California Area Health Education Centers. Although medical residents have served as instructors for the program at most locations, we have demonstrated that other health professionals and trainees can successfully implement the program as long as they have a physician “on-call” for challenging medical questions that may arise during the program. The program has been taught successfully by school nurses, nursing students, community health workers, community health educators, pharmacy students, and medical students. **Setting:** Health care, Indian Tribal Organizations, Schools **Target Audience:** High School, Parents/Mothers/Fathers, Adults, Older Adults **Race/Ethnicity:** All

Intervention Components

SYDCP includes 8 engaging one-hour classes for high school students taught once a week for 8 weeks and a coaching assignment after each class. Each class content includes basic health and wellness knowledge, as well as coaching and communication skill training. In the classes, high school students learn strategies for incremental health improvement, including creating action plans; discuss responsibilities of patients within the healthcare system; and regularly interact with physicians or other health professional trainees who are the program instructors. Youth participants meet with the family member they are coaching after each class to complete the coaching assignment, which includes sharing health information and practicing coaching skills by supporting team members to create action plans for health improvement. Weekly coaching assignments are structured such that the family members share their experiences and challenges managing their chronic illnesses with their student coaches. In turn, as part of structured check-ins and discussions, student coaches share these realities with the medical residents in class who facilitate problem-solving conversations. The program is tightly scripted after years of iterative improvement and each class contains critical components.

Intervention Materials

Program materials include:

- 2 orientation videos for instructors.
- 8 power-point presentations (one for each lesson).
- Written instructor guides for each lesson.
- Weekly coaching assignments.

All materials are available to receive and download electronically after signing a letter of agreement. Additional program guidance is available on the SYDCP website (<https://med.stanford.edu/stanfordyouthcoaching.html>).

Intervention Costs

The intervention materials are available at no cost. Interested partners and collaborators can contact the program manager directly through the website (<https://med.stanford.edu/stanfordyouthcoaching.html>) to establish collaboration, ensure target population is low-income and under-represented minority (URM) youth, and complete terms of agreement.

Evidence Summary

SYDCP was developed through an iterative process of teaching and talking to local youth at underserved high schools. Level of health knowledge was gauged through asking about their experiences with food access and nutrition, physical activity barriers and options, and interactions with the healthcare system. Program curriculum was designed to address these factors directly. Outcome measures were selected in consultation with leaders in chronic disease self-management and in response to participant qualitative feedback on program's impact. In addition to improving health knowledge and communication skills (main curriculum content), significant improvement in the following were observed: psychosocial assets (including resilience, self-efficacy, problem-solving, and self-esteem); understanding how to improve health; health mindsets; patient activation (proven to correlate with improved health outcomes); and family communication. After participation, youth coaches were significantly more likely to talk about health-related topics with family members and encourage them to create action plans to adopt healthy behaviors. Finally, participants reported improvement in healthy behaviors, such as

increased physical activity, decreased levels of stress, and increased hours of sleep. The following publications summarize program acceptability and impact on students, family members, and instructors.

- Gefter L, Morioka-Douglas N, Srivastava A, Rodriguez E (2016) Supporting At-Risk Youth and Their Families to Manage and Prevent Diabetes: Developing a National Partnership of Medical Residency Programs and High Schools. PLoS ONE 11(7): e0158477. doi:10.1371/journal.pone.0158477
 - <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0158477>
- Gefter LR, Douglas MN, Srivastava A, Rodriguez E (2019) Addressing Health Disparities and Increasing Cultural Competency of Medical Trainees with Community Engagement. J Community Med Health Educ 9: 647. doi:10.4172/2161-0711.1000647
 - <https://www.omicsonline.org/open-access-pdfs/addressing-health-disparities-and-increasing-cultural-competency-of-medical-trainees-with-community-engagement.pdf>
- Gefter L, Rosas LG, Rodriguez E, Morioka-Douglas N. Training at-risk youth to become diabetes self-management coaches for family members: partnering family medicine residents with underserved schools: Partnering family medicine residents with underserved schools. *Diabetes Educ* . 2014;40(6):786-796. doi:10.1177/0145721714549676
 - <https://journals.sagepub.com/doi/10.1177/0145721714549676>

Evidence-based Approach: Research-tested

Evaluation Indicators

Based on the SNAP-Ed Evaluation Framework, the following outcome indicators can be used to evaluate intervention progress and success.

	Readiness and Capacity – Short Term (ST)	Changes – Medium Term (MT)	Effectiveness and Maintenance – Long Term (LT)	Population Results (R)
Individual		MT1 , MT3		
Environmental Settings	ST6 , ST7			
Sectors of Influence		MT11		

Significant outcomes were found for the following indicators:

- MT1: (c) Ate more than one kind of fruit, (d) Ate more than one kind of vegetable, (h) Drinking fewer sugary drinks/sweetened beverages, (k) Eating fewer sweets and sugary foods, (l) Cups of fruit consumed per day, (m) Cups of vegetables consumed per day
- MT3: (a) Increases in physical activity and leisure sport, (b) Increases in physical activity when you breathed harder than normal (moderate-vigorous physical activity), (c) Exercised hard for 10 minutes or more/physical activity to make muscles stronger, (d) Physical education or gym class activities (school PE) (Exercised or played so hard that the body got tired).
- ST6: Program Champions
- ST7: Organizational Partnerships
- MT11: Health Care Clinical Community Linkages

Evaluation Materials

Program evaluation materials include:

- Youth health coaches' pre and post test surveys
- Instructor post-surveys
- High School Teachers' post-surveys
- High School Administrators' post-surveys
- Coaches' weekly coaching assignments
- Focus group questions for instructors after participation

Additional Information

The SYDCP Website, <https://med.stanford.edu/stanfordyouthcoaching.html>, contains additional resources regarding instructor orientation, curriculum, and implementation. **Contact Person(s):** Dr. Liana Gefter Email: lgefter@stanford.edu Phone: 650-438-4428