

Ready to Change: An Integrated Approach to Nutrition Education & Food Access in a Behavioral Health Setting

Katie (Cathryn) Johnson, MPH, IBCLC – Nutrition, Family & Consumer Sciences Advisor
 Wylie Skillman, BA – Nutrition Educator
 Gretchen Birtwhistle, MS Candidate – Nutrition Education Coordinator

Background & Aims

Willing & Able to Change

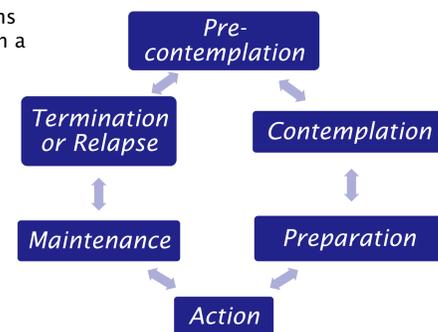
In order to successfully improve dietary patterns, nutrition interventions must reach people who are both willing and able to adopt healthy eating behaviors. The Transtheoretical Model of behavior change identifies 6 stages of readiness for adopting changes, and can be used to improve the effectiveness of nutrition interventions.

Adults receiving behavioral health services likely face an elevated risk of nutrition-related chronic diseases, but they may also benefit from an enhanced readiness to change. An individual who chooses to participate in support services aimed at improving wellbeing and health may be more receptive to adopting healthy eating behaviors.

In addition to an intention to change, people also must have the ability to take action to make changes in their lives. Access to healthy foods will affect an individual's ability to adopt healthy eating behaviors.

By providing nutrition education lessons along with healthy food distributions in a behavioral health setting, this intervention aims to:

1. Improve nutrition knowledge among an at-risk population that may suffer from nutrition-related chronic diseases.
2. Increase healthy food access among a population that may be ready to make healthy dietary changes.



The 6 stages of change in the Transtheoretical Model.

Activities

Nutrition Education + Food Distribution

In June of 2014, UCCE Central Sierra CalFresh staff began a partnership to integrate nutrition education with 2 other community programs. A supportive services program offered by the Tuolumne County Behavioral Health Department invited CalFresh staff to teach adult clients about healthy eating. The Amador-Tuolumne Community Action Agency Food Bank also established the site as a mobile food pantry, so that CalFresh staff could distribute healthy food after delivering nutrition education lessons.

- Twice monthly, UCCE Central Sierra CalFresh staff transport food from the food bank to their lesson at Behavioral Health. While the types of food vary from month to month, the food bank allows CalFresh staff to select the healthiest options to distribute. For example, bread is sorted to prioritize whole grain-rich choices.

- At Behavioral Health, nutrition education is delivered by CalFresh staff using the *Eat Healthy, Be Active* curriculum based on the Dietary Guidelines for Americans. The information is presented as a ½ hour group lesson to approximately 15-25 adults. Some but not all participants attend the classes regularly.
- Following the lesson, UCCE CalFresh staff distribute healthy foods from the food bank, functioning as a mobile food pantry. Multiple grocery bags of food are available for each participant.

Outcomes

Participation & Intent to Change

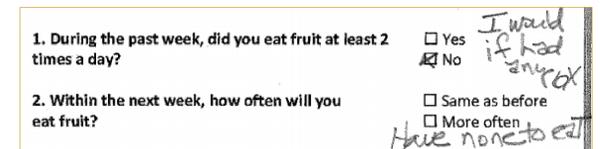
Over the past 3 ½ years, UCCE Central Sierra CalFresh staff have made a total of 629 educational contacts paired with food distributions. Unique/unduplicated participants are not tracked due to privacy and logistical concerns.

Outcomes for the nutrition education component are currently assessed using the written, self-administered UCCE CalFresh Intent to Change (ITC) questionnaire, which asks 2 questions related to a single nutrition topic area. Questions vary depending on the content of the lesson. For the 6 month period from October, 2017 to March, 2018, results showed 40.0% of educational contacts identified an unhealthy dietary behaviour, and 36.6% of educational contacts identified an intent to change an unhealthy dietary behavior.

Results from Intent to Change questionnaires given by UCCE Central Sierra CalFresh staff at 11 nutrition education classes held at Tuolumne County Behavioral Health between October, 2017 and March, 2018.

	10/4	11/1	11/22	12/6	12/20	1/3	1/17	2/7	2/21	3/7	Total
# of Participants	23	22	20	24	17	16	20	19	24	20	205
Unhealthy Behavior Present	69.6%	27.3%	30.0%	54.2%	41.2%	37.5%	45.0%	42.1%	25.0%	25.0%	40.0%
Intent to Change Present	43.5%	22.7%	35.0%	33.3%	41.2%	31.3%	55.0%	52.6%	16.7%	40.0%	36.6%

While recent ITC results are encouraging, major limitations to using only the Intent to Change questionnaire to evaluate this intervention are that it does not measure whether participants have access to healthy foods, and does not directly assess outcomes of the food distribution component.



Participant comments on an Intent to Change questionnaire.

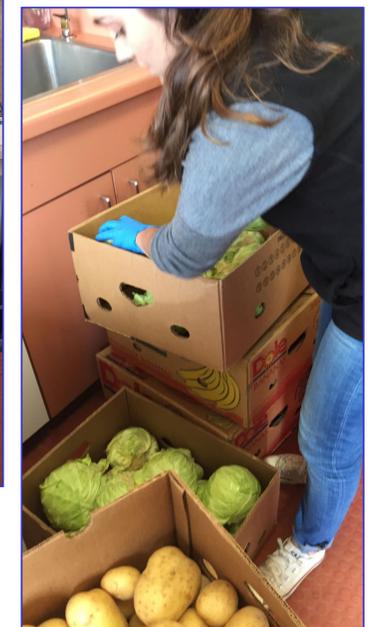
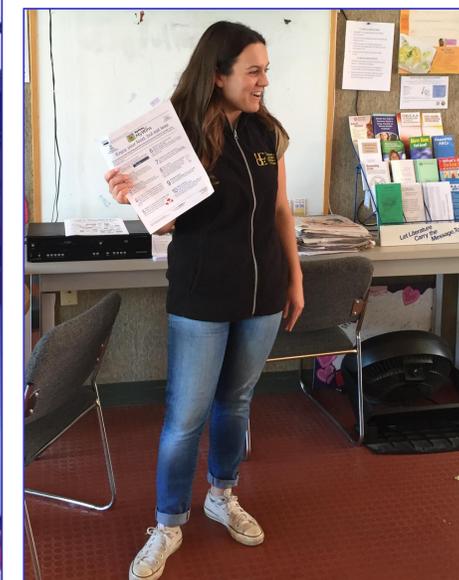
Next Steps

Participatory Evaluation Methods

Further evaluation of this intervention is warranted to assess possible changes in dietary quality or access to healthy foods, but traditional pre-post nutritional assessment tools are difficult to implement in this behavioral health setting. Literacy levels vary widely among participants, so a written food frequency questionnaire or dietary recall is not suitable. Time limitations do not allow for individual verbal interviews or questionnaire administration by staff.

Participatory evaluation methods may be used in the future as a solution to these issues. Participatory methods can be integrated into a lesson using non-written forms of communication, which would lower the burden on participants to complete the evaluation and may improve the accuracy of the results. Participatory methods can also help to engage class participants in the lesson.

As this intervention finishes its 4th year, insights into a sustainable model for nutrition education paired with food distribution should be explored.



UCCE Central Sierra CalFresh nutrition education staff picking up food from the Tuolumne County food bank (left), teaching a nutrition education lesson at the Tuolumne County Behavioral Health facility (center), and distributing healthy food to participants after the lesson (right).

University of California
 Agriculture and Natural Resources