

Disease Improvement through Culinary Education (DICE)

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BACKGROUND

It has been reported that food insecure patients with diabetes report lower satisfaction with life, a higher prevalence of depression, and self-perceived stress. Community nutrition education programs targeting secondary prevention of chronic illness have the capability to educate and reduce stress, which may have a long-term risk modifying influence on the development of cardiovascular disease. DICE is an experiential community nutrition program that incorporates nutrition education and an interactive cooking session to educate and self-motivate patients to manage their disease through dietary changes at home.

OBJECTIVE

To measure change in participant pre- and post- intervention knowledge, attitude, and stress.

MATERIALS & METHODS

Setting: Mount Carmel Healthy Living Center, Columbus, OH

Participants: 18 Internal Medicine clinic patients with T2DM. Our population has a 33% prevalence of T2DM compared to 8.6% in the general U.S. population.

Design: 3 hour intervention consisting of 2 parts: (1) nutrition education including basic physiology, epidemiology, complications, and dietary and lifestyle management (carbohydrate counting, portion control, do's and don'ts of snacking); and (2) cooking session with residents and chefs including food preparation techniques, healthy alternatives, and preparation of samples meals. A 5-point Likert scale assessed participants pre- and post-intervention perceived knowledge. Pre- and post-intervention stress level was assessed using a 10-point scale.

RESULTS

- A statistically significant increase in self-reported understanding of T2DM was seen from pre-to-post intervention (median change=1.0, p=0.0010).
- Participant stress level decreased pre-to-post intervention (p-value: 0.0127) from 6 (SD=2.5) to 4.2 (SD=2.4)
- Participants who responded to the post survey (N=17) stated the program was helpful, cooking skills were learned, and they would recommend the class.

TABLE 1. Knowledge Base Assessment of Diabetes Mellitus

Circle the correct answer to the following questions:	% correct pre-class	% correct post-class
What is diabetes?	77.8%	100%
If you are diagnosed with diabetes, which of the following are an appropriate HgbA1c target?	56%	67%
How often should you have your HgbA1c checked?	61%	89%
Which of the following are considered a normal blood glucose level?	50%	56%
How many grams of carbohydrates should you have with each meal?	28%	61%

TABLE 2. DICE Questionnaire Responses of Participants (n=17)

Circle yes or no to the following statements:	% 'yes'
Does your doctor spend enough time teaching you about ways to modify your lifestyle for better health?	27%
Can one's diet affect mood?	94%
Was this program helpful for you?	94%
Would you recommend this program to your friend with diabetes?	94%
Did you learn skills that you will use at home?	94%

CONCLUSION

- Perceived knowledge, attitude, and beliefs trended in the positive direction from pre- to post- intervention.
- Cooking interventions with guided instruction may alter psychosocial factors that can have a positive impact on disease progression.
- Feedback was overwhelmingly positive. Patients expressed their need to have physicians spend more time with them discussing lifestyle changes.

