

ABSTRACT

Objective: To evaluate the effectiveness of nutritional interventions in a food bank setting aimed to improve the perception of the availability of nutritious food items.

Design: Quasi-experimental design study and pre/post-intervention assessments

Methods: Food Bank participant nutritional knowledge and confidence levels in their ability to produce nutritious meals with food received from the food bank was evaluated pre and post nutritional intervention.

Setting: Delaware Opportunities, Hamden NY

Participants: Ten people who were utilizing the Delaware Opportunities Food Bank

Intervention: Participants were provided a recipe based on ingredients available at the food bank, a food demonstration of said recipe and a traffic light labeling system accompanied by education and explanation of the categorization.

Results: Nutritional knowledge significantly increased post intervention, however participant confidence in their ability to produce nutritious meals based on food items received from the food bank did not significantly increase.

Conclusion and Implications: Traffic light labeling, recipe development, and food demonstration provided at the Delaware Opportunities Food Bank significantly improved participant nutritional knowledge related to the food available but did not significantly increase participant confidence to create nutritious meals moving forward. The results as well as relevant literature suggest that more long-term interventions are needed to improve confidence in a meaningful way.

INTRODUCTION

- Due to various reasons, Food Banks are often limited to the variety and quality of food they can offer.
- Previous research suggests inconsistent success of strategies developed up to this point to encourage healthier food choices and a more positive experience at the Food Bank
- A Needs Assessment was conducted and it was identified that in general food bank participants did not feel they were receiving foods they could make nutritious meals with.
- The purpose of this study was the evaluate the effectiveness of nutrition education strategies including traffic light labeling, recipe development and food demonstrations in a Food Bank setting on participant knowledge and confidence in their ability to construct nutritious meals with the food received.

METHODS

- This study was conducted at the Delaware Opportunities Food Bank in Hamden, NY.
- There were 10 participants.
- Participant knowledge and confidence was measured using a pre and post intervention assessment.
- Results of the pre and post assessment were analyzed using a paired T-test conducted by SPSS software. Significance was determined assuming p<0.05.

RESULTS

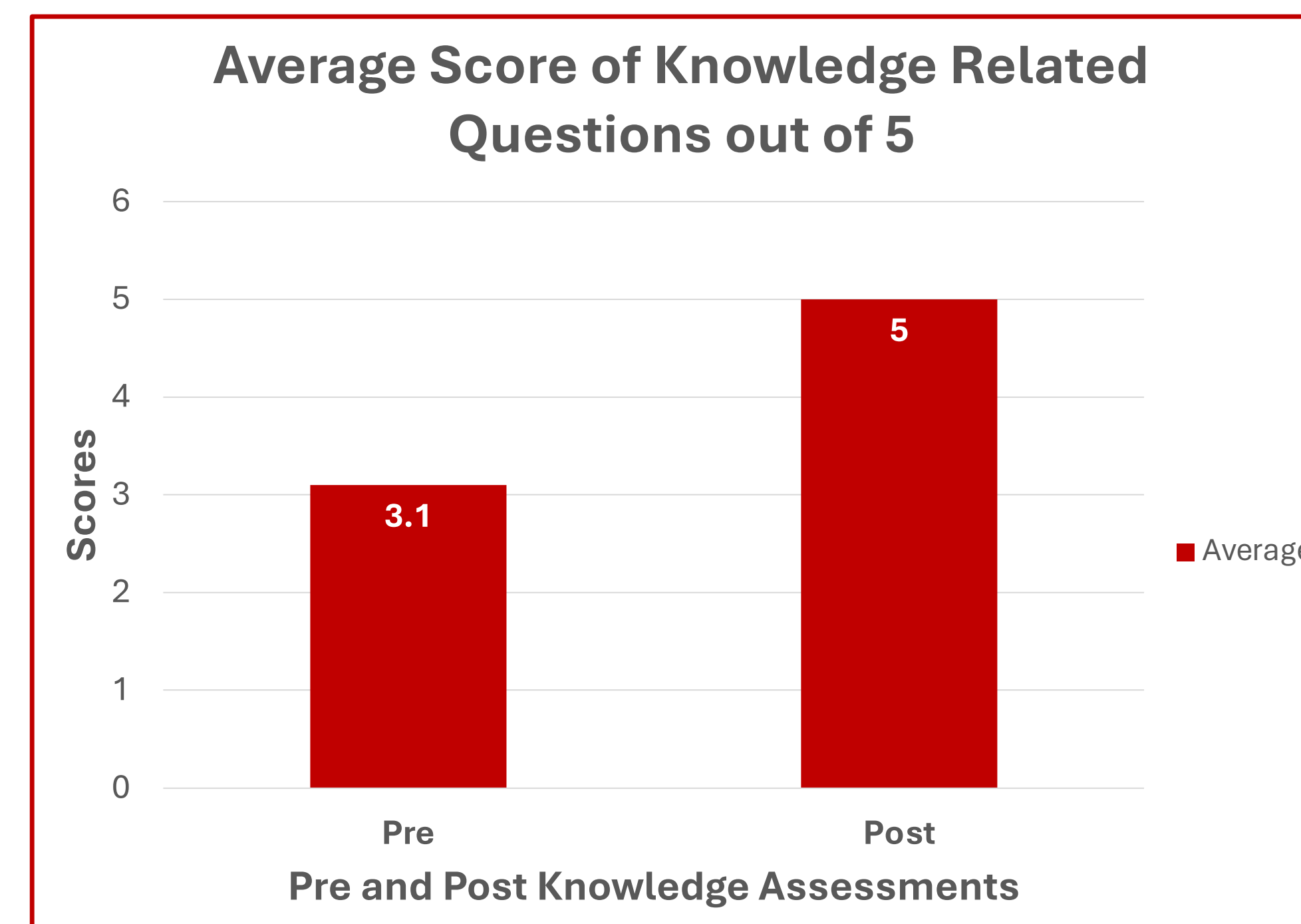


Figure 1. Changes in mean participant scores from pre to post intervention assessment for nutritional knowledge related assessment. Mean scores are based on questions #1-5, and the average points earned by each participant (n=10) out of a total possible 5 points (1 point per question). The changes in mean scores from pre – post assessment was statistically significant (p=.001).

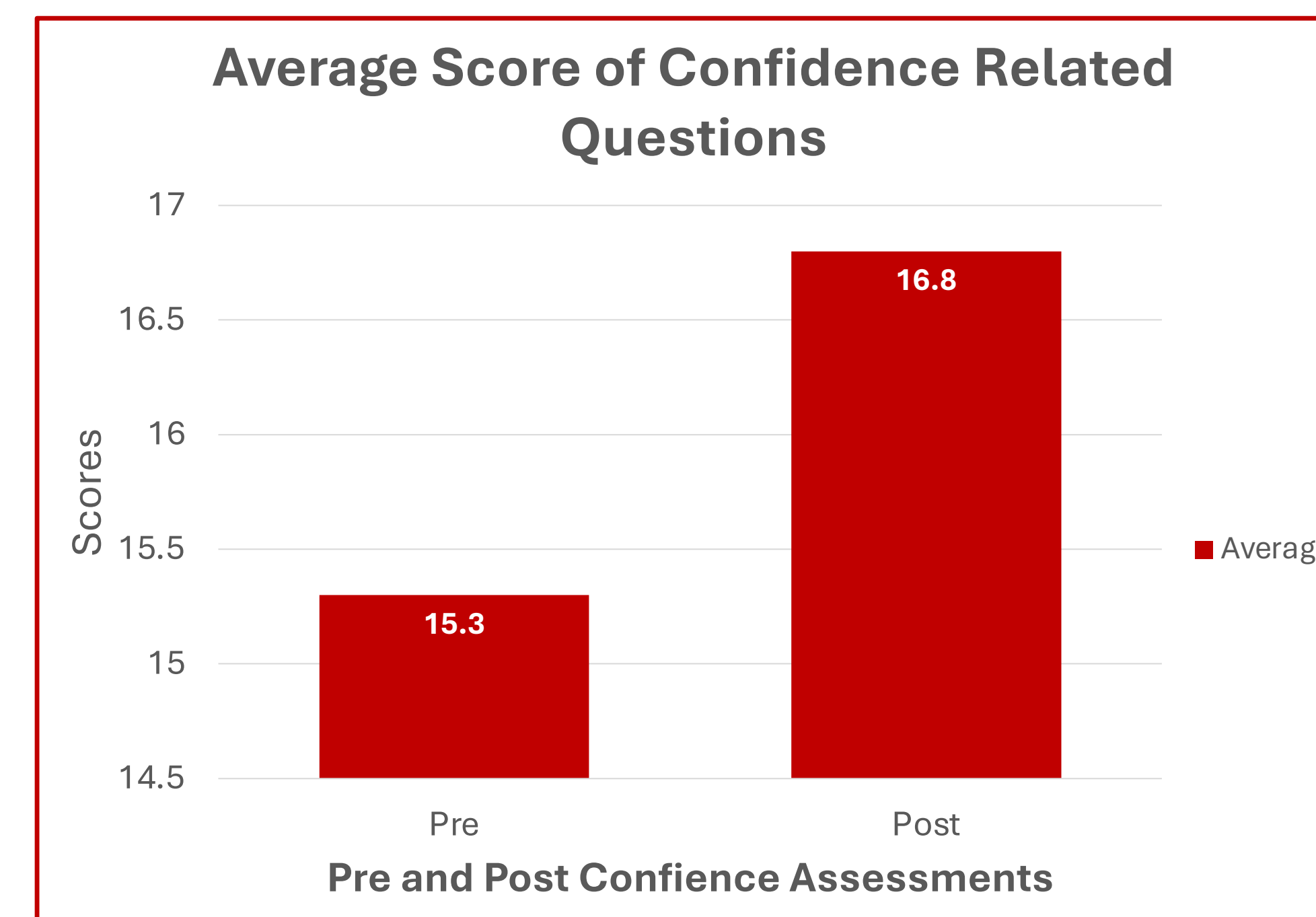


Figure 2. Changes in mean participant scores from pre to post intervention assessment for assessment related to participant confidence in their ability to produce nutritious meals with food received from the food bank. Mean scores are based on questions #6-10, and the average points reported by each participant (n=10). Scores were calculated based on likert scale values, based on responses of A-D. “A” answers indicate the least amount of confidence, “B” somewhat confident, “C” moderately confident and “D” very confident. A=1 point, B=2 points, C=3 points and D=4 points. The changes in mean scores from pre – post assessment were not statistically significant (Double sided p value=.091).

Table 1. Participant response to “Do you feel able to create and cook and healthy meals with the food you receive from the food bank? Please Explain:

1. I do. I am able to make balanced healthy meals.
2. I enjoy making food from the food pantry.
3. Have appropriate appliances and look to create nutritious foods.
4. Yes – Gluten free is a variety.
5. Yes – Salads, nuts, beans, fruit.
6. Yes.
7. Yes.

Figure 3. Seven out of ten participants responded to this question. Participant answers were all positive and confirmed confidence in their ability to produce nutritious meals.

DISCUSSION

- Results indicate that while the proposed nutritional interventions increased nutritional knowledge related to making nutritious meals with the food available in the food bank, they did not significantly increase participants confidence to prepare a nutritious meal with the food they received.
- Study results indicate a significant increase in nutritional knowledge related the food available at the food bank (p = .001).
- Participant confidence in the nutrition interventions and in their ability to produce nutritious meals with the food received was not significant (p = .091).
- Open response questions indicated that 7/10 participants feel that they are able to make nutritious meals with the food received.
- Results indicate that more long-term interventions are needed to improve participant confidence in their ability to produce nutritious meals with food obtained from the food bank, this is consistent with other research on food bank interventions.

CONCLUSION

Nutrition intervention in the form of traffic light labeling, recipe development and food demonstrations was well received and significantly improved participant knowledge. However, these strategies did not significantly improve participant confidence in their ability to produce nutritious meals with the obtained food. Future research should analyze long-term interventions.

REFERENCES

1. Jia J, Burgun R, Reilly A, et al. A food bank program to help food pantries improve healthy food choices: mixed methods evaluation of The Greater Boston Food Bank’s Healthy Pantry Program. *BMC Public Health*. 2023;23(1):355. Published 2023 Feb 17. doi:10.1186/s12889-023-15243-4
2. Norbert L.W. Wilson, David R. Just, Jeffery Swigert, Brian Wansink, Food pantry selection solutions: a randomized controlled trial in client-choice food pantries to nudge clients to targeted foods, *Journal of Public Health*, Volume 39, Issue 2, June 2017, Pages 366–372, <https://doi.org/10.1093/pubmed/fdw043>
3. Cooksey-Stowers K, Martin KS, Schwartz M. Client preferences for nutrition interventions in food pantries. *Journal of Hunger & Environmental Nutrition*. 2018;14(1-2):18-34. doi:10.1080/19320248.2018.1512929
4. Eicher-Miller HA, Wright BN, Tooze JA, et al. Evaluating a food pantry-based intervention to improve food security, dietary intake, and quality in Midwestern food pantries. *Journal of the Academy of Nutrition and Dietetics*. 2022;122(11):2060-2071. doi:10.1016/j.jand.2022.02.016
5. Jia J, Burgun R, Reilly A, et al. A food bank program to help food pantries improve healthy food choices: mixed methods evaluation of The Greater Boston Food Bank’s Healthy Pantry Program. *BMC Public Health*. 2023;23(1):355. Published 2023 Feb 17. doi:10.1186/s12889-023-15243-4
6. Morales SI, Vicente G, LaMonaca K, et al. The implementation of a nutrition intervention in food pantries: The spirit of swap. *Health Promotion Practice*. 2023;24(1_suppl). doi:10.1177/1524839922112454