

Building Confidence in Nutrition-Centered Dementia Care: Developing a Project ECHO® Training for Primary Care Clinicians

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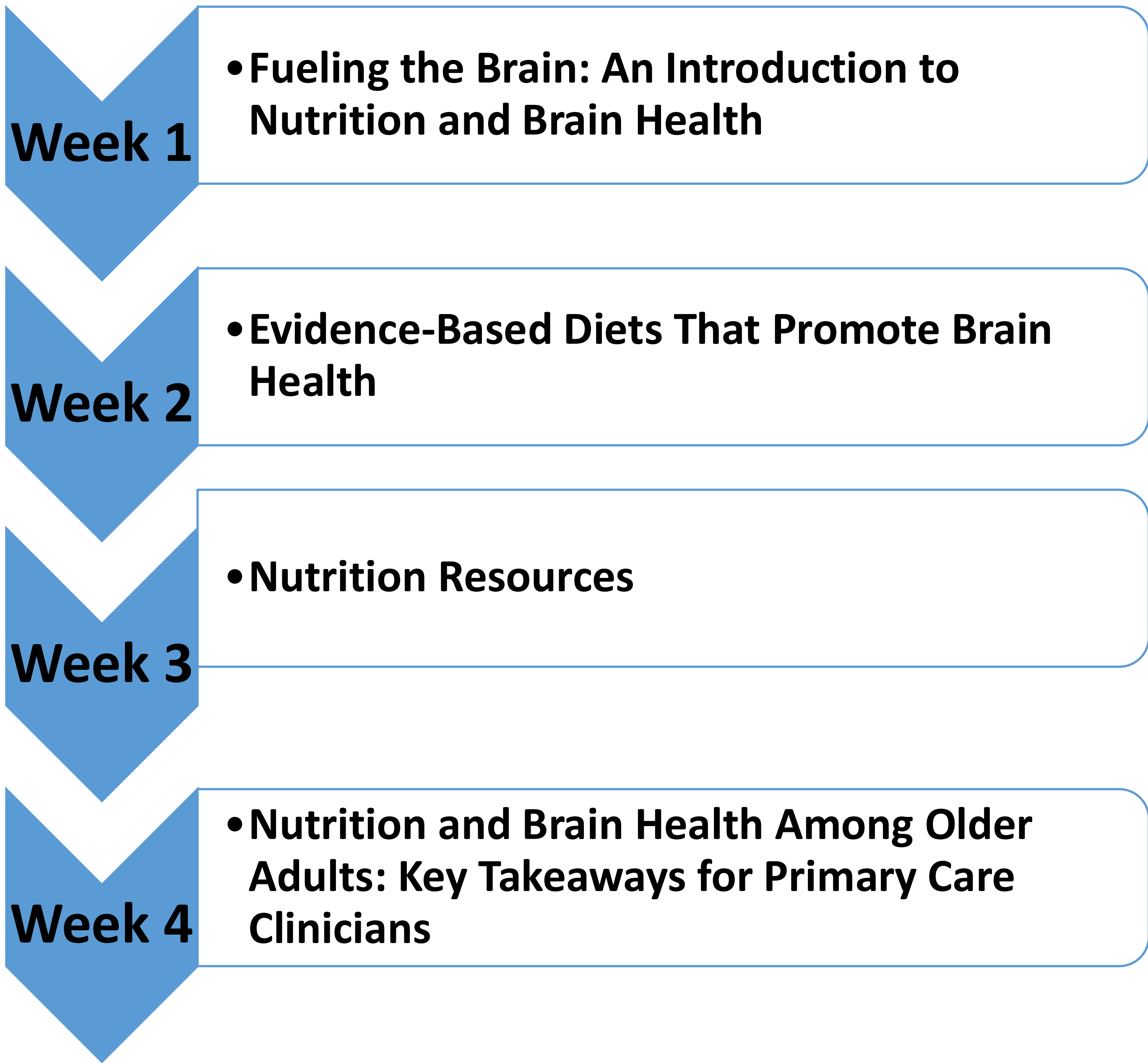
Background

- Studies indicate that improved diet quality are associated with a significantly lower risk of dementia in Latino older adults.
- Primary care clinicians are usually the initial point of contact in providing patient care; however, many clinicians report inadequate training and a lack of confidence in promoting brain health among their patients from a nutrition perspective.
- Programs that improve clinicians' skills in evidence-based methods can address community needs and improve healthcare systems.

Methods

- Objective:** To evaluate the impact of a Project ECHO® pilot program aimed at increasing primary care clinicians’ self-efficacy in promoting brain health through nutrition among Latino older adults in South Texas.
- Design:** Mixed-methods explanatory sequential design
- Setting:** Primary care clinicians providing care to Latino older adults and affiliated with UT Health, San Antonio.
- Participants:** Doctor of Medicine (MDs), Doctor of Osteopathic Medicine (DOs), Nurse Practitioners (NPs)
- Inclusion Criteria:** Practicing within partner networks, licensed in the state of Texas, and able to commit to attending all sessions.
- Exclusion criteria:** Inability to read and speak English, and unable to access/utilize videoconferencing technology.
- Intervention:** Using the Project ECHO® model, the program provided nutrition-focused training to primary care clinicians conducted weekly via Zoom over four 1.5-hour sessions.
- Outcome Measurements:** Quantitative data were collected via pre- and post-intervention surveys and analyzed using Wilcoxon signed-rank test in GraphPad Prism Version 10.6.0. Interview transcripts were analyzed thematically using Taguette (Version 1.3).

Figure 1: Weekly Nutrition Topics



Results

Figure 2: Program Sequence

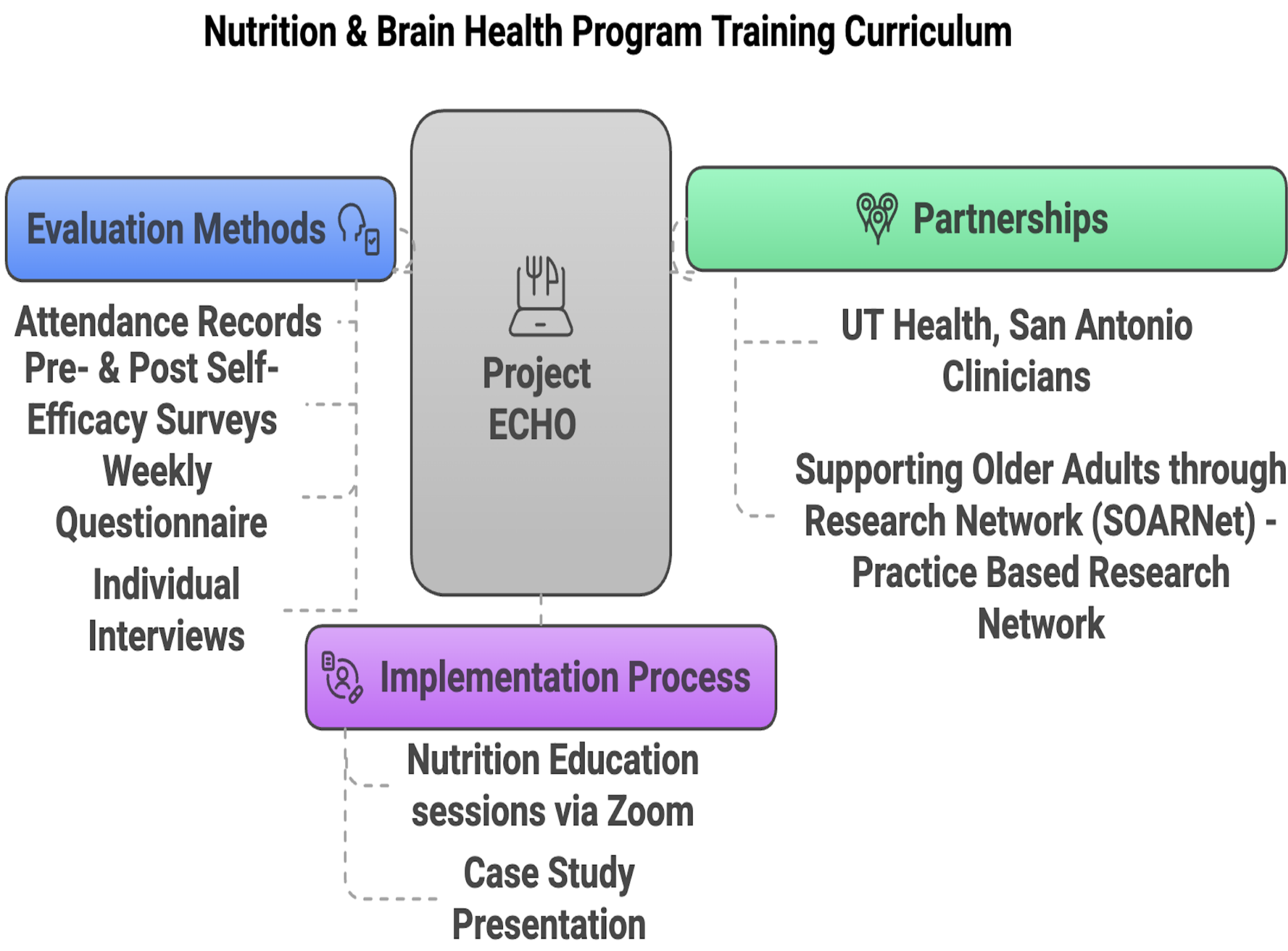


Figure 3: Focus Group Themes

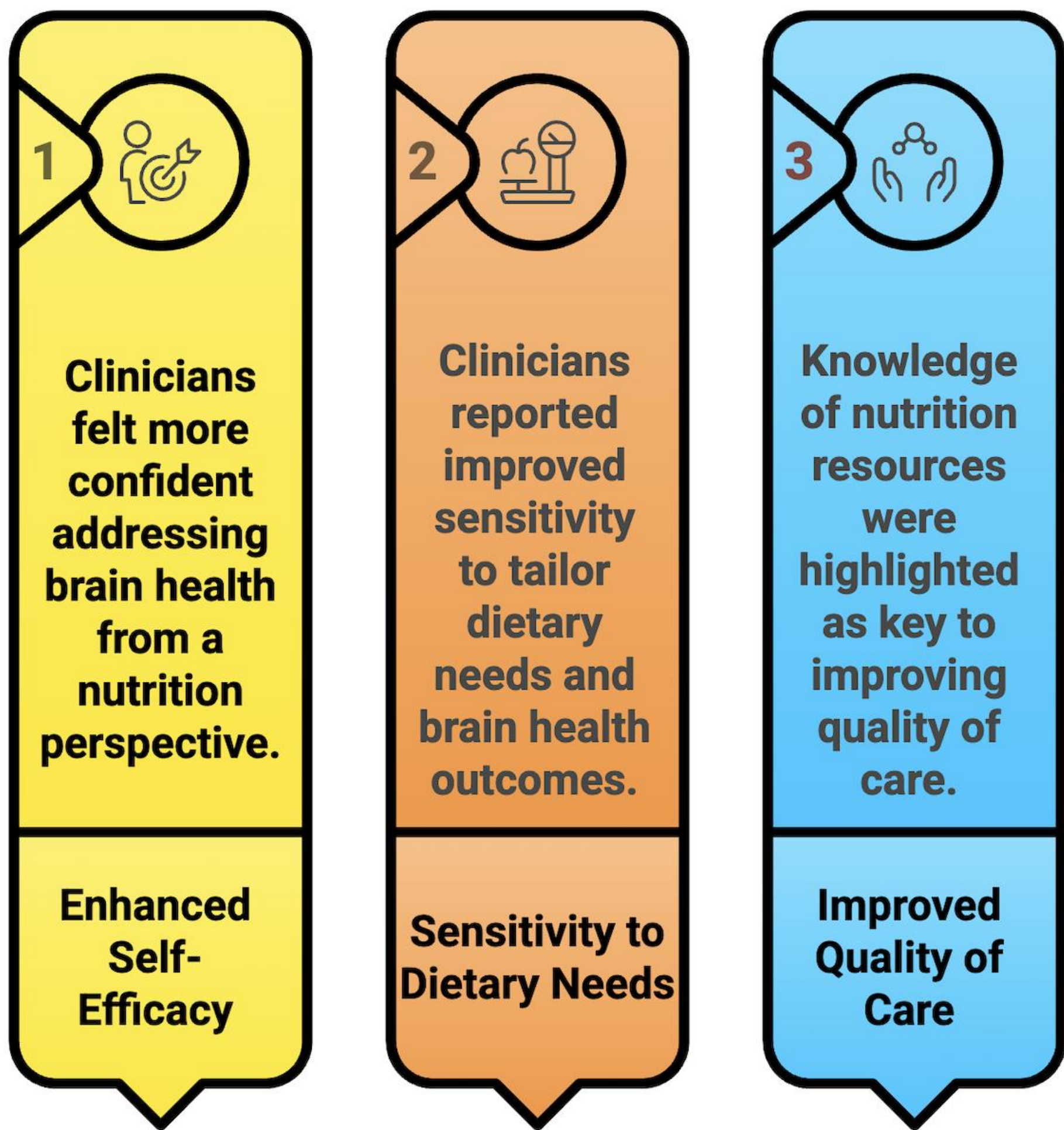


Table 1: Demographics

| Measurement | Enrolled (N=13) |
|--|-----------------|
| Age in years ± SD | 55 ± 3.38 |
| Female (%) | 85% |
| Practicing for more than 10 years (%) | 62% |
| Practicing in Family Medicine (%) | 77% |
| Received prior training in nutrition (%) | 38% |
| Doctor of Medicine (MD) | 54% |

Table 2: Clinician Self-Efficacy Pre- & Post Survey Responses

| Survey Questions | Pre-survey M (±SEM) N=13 | Post-survey M (±SEM) N=13 | Cohen's d | P* value |
|---|--------------------------|---------------------------|-----------|----------|
| Understand nutrition and brain health connection | 1.8 ± 0.3 | 3.7 ± 0.1 | 2.28 | <0.005 |
| Describe strategies to lower dementia risk factors | 2.2 ± 0.3 | 3.7 ± 0.3 | 1.56 | <0.005 |
| Describe ways to manage dementia symptoms and progression | 1.9 ± 0.4 | 3.4 ± 0.7 | 1.31 | <0.005 |
| Recommend evidence-based diets for brain health | 1.7 ± 0.4 | 3.8 ± 0.4 | 2.12 | <0.005 |
| Describe the impact of food insecurity on brain health in adults | 1.5 ± 0.3 | 3.7 ± 0.6 | 2.23 | <0.005 |
| Connect patients with community resources for nutrition and brain health | 1.1 ± 0.2 | 3.8 ± 0.4 | 4.53 | <0.005 |
| Discuss culturally inclusive nutritional recommendations with patients | 1.2 ± 0.3 | 3.5 ± 0.1 | 3.07 | <0.005 |
| Use screening questions to assess patients' nutritional status for brain health | 1.4 ± 1.1 | 3.6 ± 0.2 | 2.56 | <0.005 |

Note: N = number of participants. M (±SEM) = M (±Standard Error of Mean). *p<0.005. Pre–post differences were analyzed using the Wilcoxon signed-rank test. All comparisons were statistically significant at p < 0.005. Effect sizes are reported as Cohen's d to indicate the magnitude of change.

Data indicated a statistically significant increase in mean self-efficacy scores following program participation (p<0.005). Thematic analysis of individual interviews identified three key themes related to perceived training outcomes, sensitivity to patient’s dietary needs, and ability to improve quality of care.

Conclusions

- Project ECHO® Nutrition and Brain Health program is a promising model for strengthening primary care capacity to deliver culturally relevant, nutrition-focused brain health care in underserved Latino older adult population.
- Future research should examine whether enhanced self-efficacy translates into practice change and improved patient outcomes.

References

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- Suominen MH, Kivisto SM, Pitkala KH. The effects of nutrition education on professionals' practice and on the nutrition of aged residents in dementia wards. *Eur J Clin Nutr*. Oct 2007;61(10):1226-32. doi:10.1038/sj.ejcn.1602639