A retrospective Pretest-Posttest Design as an Alternative Evaluation Method for EFNEP

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Background
The Expanded Food and Nutrition Education Program (EFNEP) is a federally funded nutrition education program that serves families and youth with limited resources. EFNEP evaluates its behavioral outcomes using prospective pretest-posttests, which can be prone to response shift bias. A retrospective survey design can be a potential solution.

Objectives
To examine EFNEP participants’ understanding and preferences regarding the retrospective versions of the EFNEP Adult Questionnaire (AQ) (Murray et al., 2017).

Methodology
One-on-one, semi-structured interviews were conducted with 23 adults, who recently graduated or were about to graduate (i.e., last 1 – 2 lessons) from EFNEP lessons. The interviews took place in five U.S. states/territories (Colorado, Guam, Maryland, New Jersey and Tennessee) in 2021-2022. The retrospective AQ included one question from each of the five AQ domains of diet quality, physical activity, food resource management, food safety, and food security. Four versions of the retrospective AQ were developed; each one displayed either the posttest or the retrospective pretest questions first and displayed these questions either side-by-side on the same page or on separate pages. The retrospective AQ was modified by adding “Before EFNEP” for the retrospective pretest and “Now” for the posttest questions.

Results

- Most of the participants self-identified as female (87%) and had a high school degree or higher (70%); the mean age was 35 years.

- Approximately 2/3 of the participants remembered hearing the name “EFNEP”; very few could recall what the name stood for. Most participants referred to EFNEP as “nutrition classes” or “nutrition lessons”.

- The topics they recalled from the lessons included healthy eating, exercising, and nutrition education.
  - “Overall, I had a lot of really good tips about healthier eating from the ways we prepare our food to buying and picking the food out, food safety when preparing it, cleaning up after it.”
  - “A workshop or class for education on nutrition and exercising and improving your health.”

- The majority of the participants (18/23) were able to appropriately differentiate the time periods between the “Before EFNEP” and “Now” questions.

- For the “Before EFNEP” questions, participants mentioned “any time before the past two months” or provided the particular month before EFNEP lessons took place. For example, “September and previously” was mentioned when the participant started participating in EFNEP in October.

- Regarding the “Now” questions, participants provided a more recent timeframe such as past weeks or past months.
  - “Let’s say since I’ve been here, about two months.”
  - “It will be the past two weeks.”
  - “Over the last couple of weeks.”

- Most (17/23) of the participants preferred the “side-by-side” design and stated that it was easier to understand or follow.
  - “Because you were doing both at the same time, and it’s easier to think about when you can think about them both at the same time rather than one and then the other.”
  - “…because when you mentioned in the first survey before the classes, you (kind of) already started thinking after.”

- Six participants preferred the “separate-page” design.
  - “It was easier for me to process the questions because it had grouped the ‘Now’s and then ‘Before’s.”

Conclusions & Implications
A retrospective AQ, especially in a side-by-side design, seems to be an acceptable alternative to the prospective surveys to evaluate behavioral outcomes of adult EFNEP participants. Because retrospective pretest-posttest surveys need to be administered only once at the end of the program, this may also present a favorable strategy to lower participants’ burden and increase efficiency of program delivery. This retrospective survey method should be tested in a larger sample to examine its criterion validity and feasibility.

Acknowledgements
This work was supported by NC13169: EFNEP Related Research, Program Evaluation, and Outreach, with support from the Hatch Multistate Research Fund provided by the U.S. Department of Agriculture (USDA)/National Institute of Food and Agriculture (NIFA) and the Agricultural Experiment Stations. Any opinions, findings, conclusions or recommendations of this publication do not reflect the views or policies of the USDA. The authors thank the EFNEP participants, educators and coordinators. Special thanks to Helen Chipman, EFNEP National Program Leader (NIFA), Carinthes Cherry, EFNEP National Program Coordinator (NIFA), and the NC13169 team for their leadership and guidance throughout the research process.