

## Evaluation

### Results

Of the original 105 people that were asked to participate, 79 participants completed both the pre and post surveys (75% response). Of those who agreed to participate, 35 were female and 44 were male. The data was anonymized, with no patient identifiers. Excel was used for data entry and two-sample t-tests were performed on each question's pre and post responses to ascertain if the education provided lead to any statistically significant difference in patient knowledge. Five Likert scale survey questions were asked to each participant, both pre and post survey, and the response options were Strongly Agree, Agree, Disagree, or Strongly Disagree. (Pre and post education responses scores provided in Table 1 and Figure 1)

After conducting two-sample t-tests on pre- and post-intervention responses from each question, it was found that there was a statistically significant change in only two of the five questions. The mean score for the question "I try to eat healthy" decreased from 1.94 to 1.61 with a  $p=0.008$ . The mean score of responses for "I know what mineral bone disease is" increased from 2.00 to 2.39 with a  $p=0.003$ . The open-ended question asking volunteers "What topics would you like to learn more about nutrition and/or preventing mineral bone disease?" yielded no useful information.

### Limitations

The limitations of the project were sampling bias, sample size, and a limited amount of existing literature surrounding the impact of dietary education and knowledge on food choices, particularly by dialysis and CKD patients. The sample size was only 79 participants in a confined geographical area, so it is unlikely that the results are representative of the general population.

Also, the study was conducted during a pandemic. Therefore, some patients ended up being hospitalized, missed treatments, or were otherwise not available for both pre and post surveys to be included.

## **Conclusion**

The providers at the two dialysis centers were delighted with the educational materials that were prepared and would likely continue to use them as patient education handouts. The “pocket card” dietary guide was very well received and while the cards we made may not be reproduced, a similar idea may be implemented based on our initial design. Education related to both dietary demands and the short- and long-term complications of poor disease management continue to be vitally important. The project showed that 75% of patients were accepting of the education if provided during their dialysis session, indicating that convenience may be a contributing factor. Future implementation should focus on reinforcement of education and performed quarterly or biannually.

Table 1: MBD Survey

	I pay attention to labels		I try to eat healthy		I know what MBD is		I know what foods to avoid for kidney health		I know what foods are good for my health	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Strongly Agree	37%	29%	41%	43%	53%	16%	54%	52%	52%	56%
Agree	42%	51%	56%	53%	41%	30%	39%	39%	42%	39%
Disagree	13%	19%	4%	4%	4%	51%	4%	9%	5%	5%
Strongly Disagree	9%	1%	0%	0%	3%	3%	3%	0%	1%	0%
Mean Scores	1.94	1.92	1.94	1.61	2	2.39	1.54	1.57	1.56	1.46

Figure 1: MBD Survey



