

Missouri Kidney Program

Center for Renal Education

Patient Education Program

Summary Report



Fiscal Year: July 1, 2005 – June 30, 2006

Published: August 23, 2006

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METHODS

The Missouri Kidney Program's (MoKP) Center for Renal Education Patient Education Program (PEP) classes began in 1983 with the goal of educating individuals diagnosed with chronic renal disease and their families. From July 1, 2005 to June 30, 2006, 117 individuals diagnosed with chronic renal disease and 135 family members attended PEP classes.

Sample Selection

This report examines only the survey data collected from the 108 individuals with chronic renal failure who completed all or at least some portion of the survey. Nine individuals with renal disease attended the class but did not complete surveys. Participation in the PEP classes is voluntary, thus individuals attending were not selected at random from the population of all individuals diagnosed with chronic renal disease in Missouri or Kansas. As such, in this data, some demographic and socioeconomic groups are underrepresented when compared to Missouri and Kansas prevalence estimates (see MoKP Annual Report).

Survey Administration

Individuals participating in the PEP classes completed written surveys after hearing presentations on different topics related to renal disease. The surveys measured individuals' demographic characteristics, dialysis use, interest in transplantation, and their pre- and post-class knowledge about chronic renal disease-relevant topics. The final survey also assessed their satisfaction with the class and their emotional state after attending the class.

Missing Data

Some chronic renal disease patients did not attend every class session. Some individuals also skipped certain questions. For these reasons, each table or analysis may not include data for all individuals who attended the PEP courses. Every participant who completed a particular question was used in the analysis.

Data Coding

The majority of variables used in the data analysis were coded identically to the survey instrument. However, the continuous variable, age, was recoded into age categories consistent with the United States Renal Data System (USRDS). For the univariate and multivariate analyses, we dichotomized demographic variables where sample sizes in some cells were low (less than 10 individuals) to create better statistical models.

ANALYSES

All statistical analyses were performed using the statistical analysis software SPSS 13.0 (SPSS, 2005). All figures and tables were prepared using SPSS and Microsoft Word 2003. We conducted frequency and descriptive statistics to summarize data into categories to examine key relationships. We conducted inferential statistics to explore certain hypotheses, specifically:

1. Did the knowledge of PEP class participants significantly improve from pre- to post-class?
2. Did their interest in receiving a transplant increase from pre- to post-class?
3. Did patients' interest in types of dialysis differ from pre- to post-class?
4. Did willingness to receive a transplant vary as a function of age, sex, race, education level, marital status, or whether they were currently on dialysis?
5. Did the type of dialysis they would choose vary as a function of age, sex, race, education level, or whether they lived with someone?
6. Did post-class fear vary as a function of age, sex, race, education level, whether they were currently on dialysis, whether they were living alone or with someone, or how many classes they attended?
7. Did post-class confusion vary as a function of age, sex, race, education level, whether they were currently on dialysis, whether they were living alone or with someone, or how many classes they attended?
8. Did post-class empowerment vary as a function of age, sex, race, education level, whether they were currently on dialysis, whether they were living alone or with someone, or how many classes they attended?
9. Did post-class hope vary as a function of age, sex, race, education level, whether they were currently on dialysis, whether they were living alone or with someone, or how many classes they attended?

OVERVIEW OF KEY FINDINGS

Demographics

- The mean age of the participants was 60 years, with most participants being older than age 50 (82%).
- Most participants were Caucasian (58%) or African-American (34%).
- There were slightly more males (51%) than females (49%) attending the classes.
- The majority had not completed college (71%).
- The majority were not employed at pre-test (72%).
- Most participants (36%) had been diagnosed with kidney disease 1-5 years ago.

Dialysis and Access

- Most PEP participants were not on dialysis at pre-test (86%).
- The 14 individuals who were beginning or receiving dialysis received either center hemodialysis (92%) or peritoneal dialysis (8%). All of the 23 PEP participants who had received an access for dialysis at pre-test had the access placed either in their arm (48%), chest/neck area (48%), or both (4%).
- When comparing dialysis preferences from pre- to post-test, participants' preference for peritoneal dialysis (16% vs. 44%, $p < .001$) significantly increased, while their interest in center (25% vs. 28%, $p > .05$) and home (12% vs. 9%, $p > .05$) hemodialysis did not significantly change.

Kidney Transplant

- The percentage of PEP class participants who were planning on receiving a kidney transplant remained relatively constant from pre-test (46%) to post-test (45%).

Knowledge and Concerns about Kidney Disease: Pre- and Post-Class

- Compared to their pre-test knowledge, individuals were able to answer more renal disease questions correctly at post-test (10 versus 17 questions answered correctly out of 24 possible). PEP class participants' mean knowledge significantly improved from pre- to post-class (from 42% to 69% of questions answered correctly), $t = -10.82$, $p < .001$.
- From pre- to post-test, the greatest increases in knowledge were for the specific questions:
 - Hernias can be a problem on peritoneal dialysis (13% vs. 87% correct)
 - Good dialysis does 15% of what healthy kidneys do (19% vs. 85% correct)
 - It's harder to travel on peritoneal than hemodialysis (38% vs. 89% correct)
 - People who are blind cannot do peritoneal dialysis (31% vs. 80% correct)
- Finally, fear and confusion about kidney disease for patients with less than a high school education were significantly reduced after the class.

Course Evaluations

- 100% of class participants said they would recommend the Missouri Kidney Program Patient Education Program to someone else who has kidney disease.
- Compared to their pre-test ratings, class participants reported being less confused about their disease and treatment at post-test, $p < .05$. There was no change in participants' feelings of fear, empowerment, or hopefulness from pre-test to post-test, $p > .05$.
- Recommendations for improvement from participants included additional discussion of nutrition and diet, home hemodialysis, and how to take care of their health.

Recommendations for Program Improvement

- Although participants' knowledge is improving from pre- to post-test, more than 40% of patients are still answering these questions incorrectly at post-test:
 - Anti-rejection medication can damage the kidney. (48% answered incorrectly)
 - Home hemodialysis does not need to be done on the same days at the same times. (48% answered incorrectly)
 - Medicare does not cover transplant drugs forever. (43% answered incorrectly)
 - People on peritoneal dialysis must eat more protein than those on hemodialysis. (43% answered incorrectly)

We recommend that a review of these topics be conducted to determine whether and how discussion needs to be increased.

- Although participants are less confused about their kidney disease after the PEP program, their fears about their disease do not decrease, nor do their feelings of empowerment and hope increase.

Do you definitely want to increase empowerment and decrease fear through the PEP program? If so, you may need to conduct some focus groups or interviews with past participants to determine why their emotions do not change. It may be that these educational goals, although important, are unrealistic to achieve in a group of patients with newly diagnosed kidney disease.

- Participants did not show an increased interest in transplant from pre- to post-test. *Current research indicates that patients who understand the benefits of transplant over remaining on dialysis are more likely to pursue it. This information is especially important for patients who might be eligible for preemptive transplantation. We recommend that discussion of deceased and living donor transplantation be expanded, focusing on its' benefits and how to weigh the pros and cons involved with pursuing transplant or remaining on dialysis.*
- We have noticed that the diversity of participants attending PEP classes over the last year has increased, thanks to the recruitment efforts of the lead MoKP health educator in each area. *We continue to recommend increasing the diversity and patient access to this successful program, since most participants participating are still Caucasian and older.*

Answers to Key Research Questions

1. Did the knowledge of PEP class participants significantly improve from pre- to post-class? **Yes.** *PEP participants' knowledge significantly increased from pre- to post-class.*
2. Did their interest in receiving a transplant increase from pre- to post-class? **No.** *The percentage of PEP class participants who were planning on receiving a kidney transplant remained relatively constant from pre-test (46%) to post-test (45%).*
3. Did their interest in types of dialysis differ from pre- to post-class? **Yes.** *When comparing dialysis preferences from pre- to post-test, PEP participants' preference for peritoneal (16% vs. 44%) significantly increased and center hemodialysis (25% vs. 28%) marginally increased, while their preference for home hemodialysis decreased (12% vs. 9%). There was also a decrease in the number of PEP patients who were unsure about which type of dialysis they would have (46% vs. 19%).*
4. Did willingness to receive a transplant vary as a function of age, sex, race, education level, or whether they were currently on dialysis? **Yes.** *Participants younger than 60 years old were significantly more likely to plan on receiving a future kidney transplant at pre-test than older patients. Sex, race, education level, education, and dialysis status did not significantly predict participants' plans to receive a future kidney transplant.*
5. Did the type of dialysis they would choose vary as a function of age, sex, race, education level, or whether they lived with someone? **No.** *Type of dialysis patients would choose did not vary by age, sex, race, education level, or whether they were living alone or with someone.*
6. Compared to their pre-class fear about their kidney disease, did post-class fear vary as a function of age, sex, race, education level, whether they were currently on dialysis, whether they were living alone or with someone, or how many classes they attended? **Yes.** *Using a variable measuring change in fear from pre- to post-class, participants with a high school education or less were significantly less afraid at post-test compared to participants with greater than a high school education. Fear did not vary by age, sex, race, whether they were currently on dialysis, whether they were living alone or with someone, or how many classes they attended.*
7. Compared to their pre-class confusion about their kidney disease, did post-class confusion vary as a function of age, sex, race, education level, whether they were currently on dialysis, whether they were living alone or with someone, or how many classes they attended? **Yes.** *Using a variable measuring change in confusion from pre- to post-class, female participants and those with a high school education or less were significantly less confused from pre- to post-test compared to male participants and those with greater than a high school education. Confusion did not vary by age, race, whether they were currently on dialysis, whether they were living alone or with someone, or how many classes they attended.*

8. Compared to their pre-class empowerment to take charge of their kidney disease, did post-class empowerment vary as a function of age, sex, race, education level, whether they were currently on dialysis, whether they were living alone or with someone, or how many classes they attended? **Yes.** *Using a variable measuring change in empowerment from pre- to post-class, younger participants' feelings of empowerment significantly increased from pre- to post-test compared to older participants. Empowerment did not vary by sex, race, education level, whether they were currently on dialysis, whether they were living alone or with someone, or how many classes they attended.*

9. Compared to their pre-class hopefulness about their future with kidney disease, did post-class hopefulness vary as a function of age, sex, race, education level, whether they were currently on dialysis, whether they were living alone or with someone, or how many classes they attended? **No.** *Using a variable measuring change in hopefulness from pre- to post-class, hopefulness did not vary by age, sex, race, education level, whether they were currently on dialysis, whether they were living alone or with someone, or how many classes they attended.*

STATISTICAL ANALYSES

I. Education Class Attendance

Total participants with renal disease that attended the class:	117	(100%)
Total participants with renal disease who completed the pre evaluation and test:	103	(88%)*
Participants with renal disease who completed the post evaluation and test:	108	(92%)*

* For all analyses, all participants who answered individual questions are included.

A. Participants at each Location

Location	Frequency	Percent
St. Louis	75	64.1%
Kansas City	42	35.9%
Total	117	100.0%

B. Class attendance of participants:

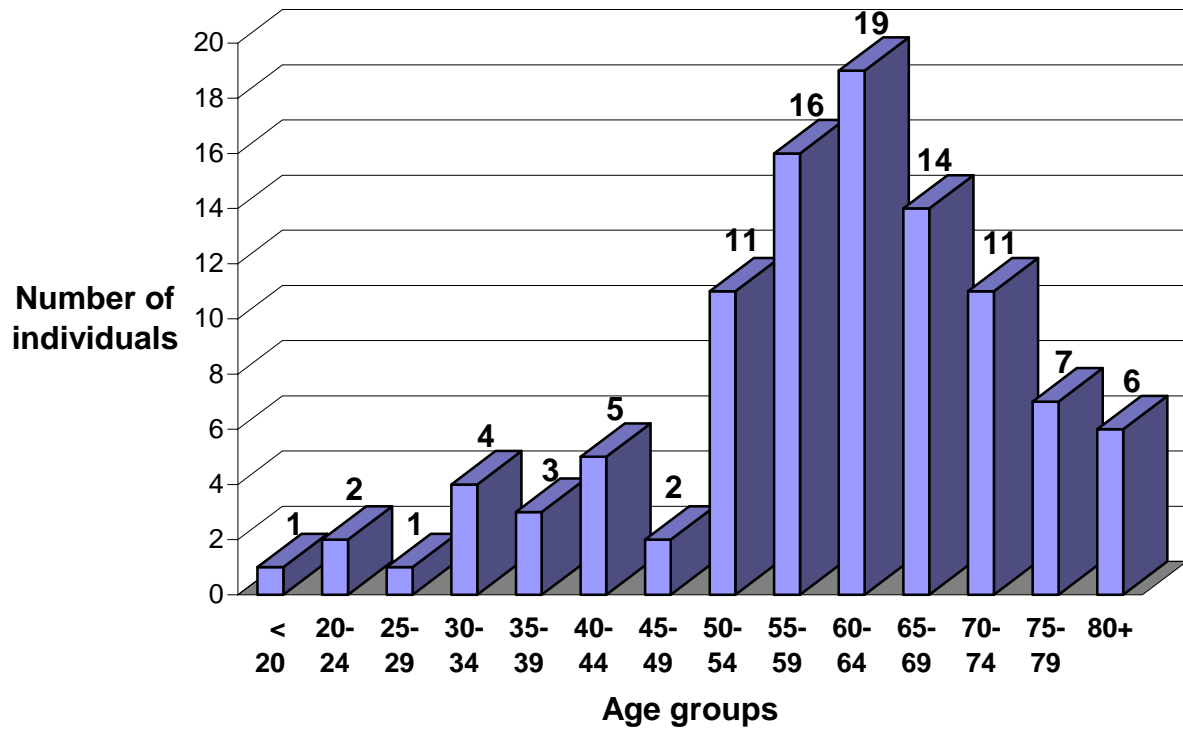
	Topic 1	Topic 2	Topic 3	Topic 4	Topic 5	Topic 6
Yes	100 (85.5%)	101 (86.3%)	95 (81.2%)	97 (82.9%)	97 (82.9%)	90 (76.9%)
No	17 (14.5%)	16 (13.7%)	22 (18.8%)	20 (17.1%)	20 (17.1%)	27 (23.1%)

Topic 1 = Introduction to Kidney Disease
 Topic 2 = Diet and Kidney Disease
 Topic 3 = Financing and Coping With Kidney Disease

Topic 4 = Hemodialysis
 Topic 5 = Peritoneal Dialysis
 Topic 6 = Kidney Transplant

II. Patient Demographics:

A. Age



Average Age: 59.5 years (SD = 14.3 years)

B. Gender

Male	54	50.9%
Female	52	49.1%
Total	106	100.0%

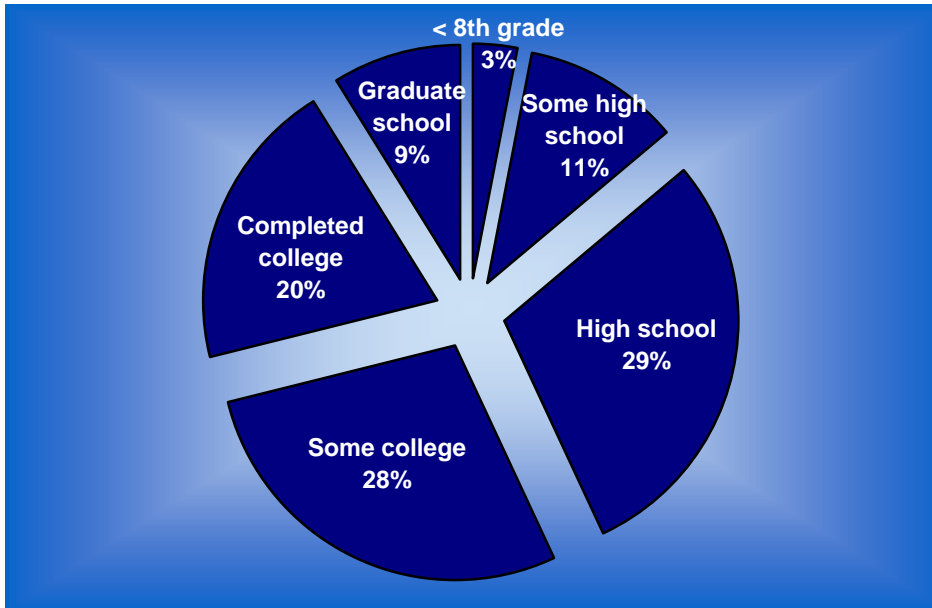
C. Race

White	61	58.1%
Black	36	34.3%
Hispanic	4	3.8%
Other	4	3.8%
Total	105	100.0%

D. Living Status

Living with someone	89	86.4%
Living alone	14	13.6%
Total	103	100.0%

E. Education



N = 99

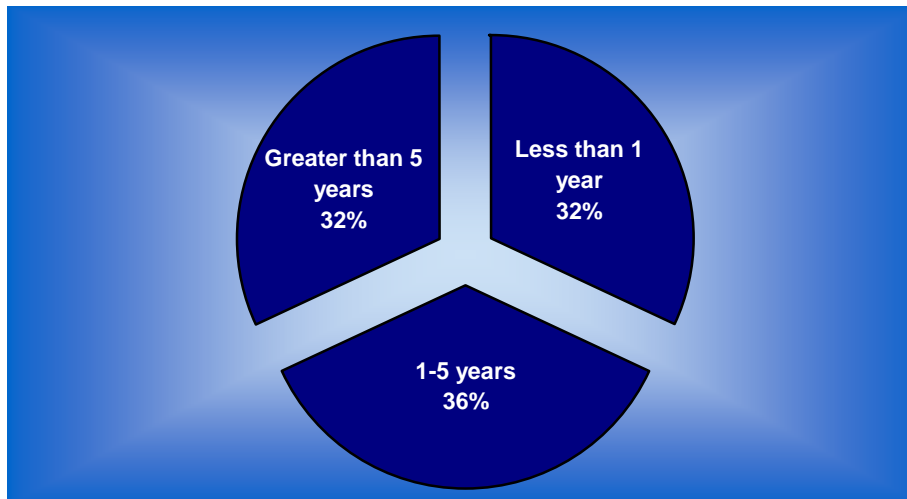
F. Employment

Not employed	75	72.1%
Employed	29	27.9%
Total	104	100.0%

III. Treatment Information:

A. Diagnosis Information

A1. How long ago were you diagnosed with Kidney Disease?



N = 99

B. Dialysis and Access

B1. Where is your dialysis access?

	Frequency	Percent
No Access	78	77.2%
Access	23	22.8%
Access type		
Arm	11	47.8%
Chest/Neck	11	47.8%
Arm and Chest/Neck	1	4.4%
Total	23	100.0%

B2. When did you start dialysis?

	Frequency	Percent
Not yet on dialysis	85	85.9%
On dialysis	14	14.1%
Began dialysis		
2005	9	75.0%
2006	3	25.0%
Total	12	100.0%

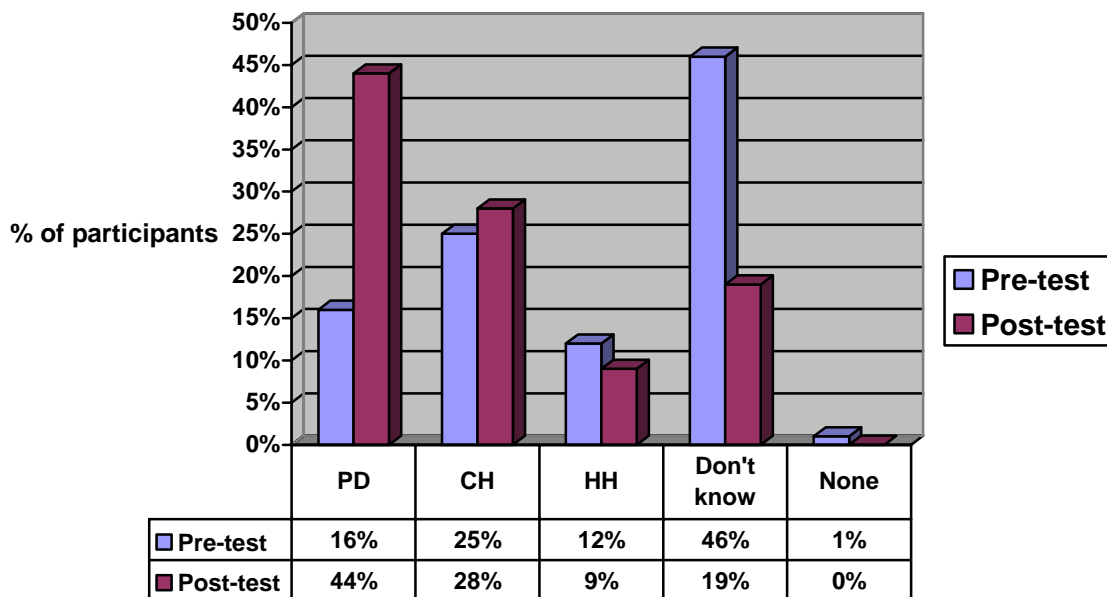
B3. What type of dialysis do you do?

CH = Center Hemodialysis **HH** = Home Hemodialysis **PD** = Peritoneal Dialysis

Dialysis type	Frequency	Percent
CH	12	92.3%
PD	1	7.7%
HH	0	0.0%
Total	13	100.0%

B4. Assuming you cannot have a transplant right away, which dialysis option would you choose?

CH = Center Hemodialysis **HH** = Home Hemodialysis **PD** = Peritoneal Dialysis



Using the McNemar test to determine if there were any significant changes in dialysis choice from pre- to post-test, we found that interest in peritoneal dialysis (16% vs. 44%, $p < .001$) significantly increased, while center hemodialysis (25% vs. 28%, $p > .05$) and home hemodialysis (12% vs. 9%, $p > .05$) did not significantly change. There was also a significant decrease in the number of PEP patients who were unsure about which type of dialysis they would have (46% vs. 19%, $p < .001$).

C. Kidney Transplant:

C1. Are you planning to receive a kidney transplant in the future?

% yes	Frequency	Percent
Pre-test (n=102)	47	46.1%
Post-test (n=91)	41	45.1%

C2. Logistic Regression for Pre-Class Kidney Transplant Interest

Did willingness to receive a transplant at vary as a function of age, sex, race, education level, whether they were currently on dialysis?

We conducted univariate analyses to examine the individual relationships between each variable and interest in transplantation at pre-test. At the univariate level, age and dialysis status were significantly associated, with PEP participants younger than age 60 and those on dialysis more likely to want a transplant at pre-test. **In logistic regression analyses, patients who were younger than 60 years (64% vs. 30%, p=.001) were more interested in having a transplant compared to other patients.**

IV. Knowledge about Kidney Disease

A. Education about Kidney Disease

<i>How many hours have you spent:</i>	Median Hours	Range
Talking with family and friends about kidney disease and treatment	2	0-100
Talking with your doctor about kidney disease and treatment	1	0-130
Reading written materials about kidney disease and treatment	1	0-100
Talking with a patient educator about kidney disease and treatment	1	0-30
Talking with a patient who was on dialysis or received a transplant	0	0-30
Browsing Internet websites about kidney disease and treatment	0	0-50
Watching videos about kidney disease and treatment	0	0-25
Attending support groups for people with kidney disease	0	0-20

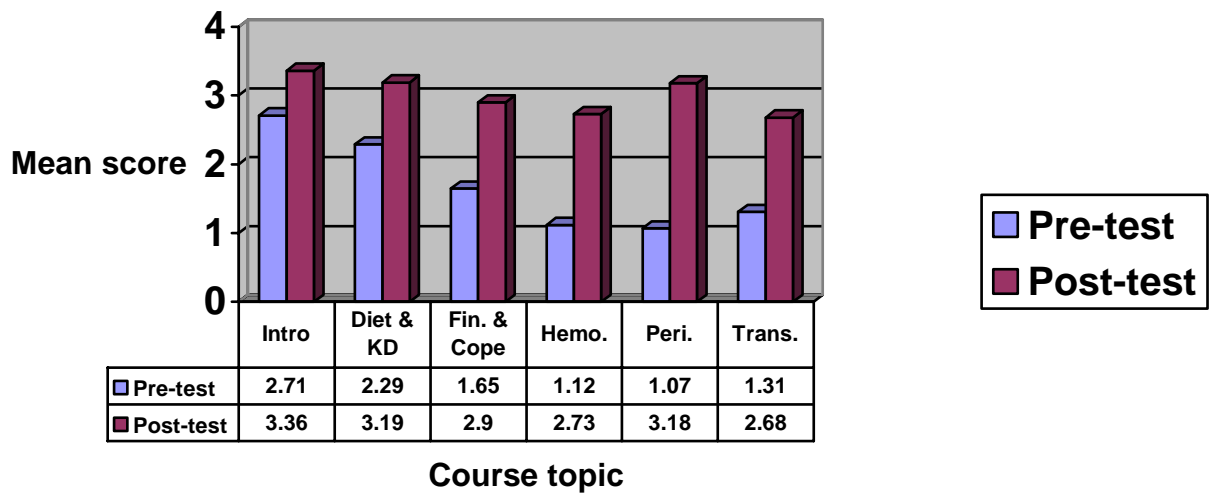
B. Pre- and Post-Class Knowledge Survey

Question	Pre-Test % Correct	Post-Test % Correct	% Change
Introduction to Kidney Disease			
Kidneys control blood pressure and anemia. (T)	78.0	92.5	+ 14.5
Poor appetite and headache can be symptoms of uremia. (T)	62.2	88.3	+ 26.1
Nothing can slow down how fast kidneys fail. (F)	61.0	78.9	+ 17.9
People with kidney failure can choose not to treat it. (T)	75.2	86.8	+ 11.6
Diet and Kidney Disease			
Transplant patients can eat anything they want. (F)	71.1	86.2	+ 15.1
People on peritoneal dialysis must eat more protein than those on hemodialysis. (T)	17.8	57.3	+ 39.5
Fluid gains don't matter because dialysis takes it off. (F)	78.2	90.5	+ 12.3
Over-the-counter medicines and herbs are safe to use. (F)	68.7	91.7	+ 23.0
Financing and Coping with Kidney Disease			
Medicare covers a live donor's surgery. (T)	30.0	73.7	+ 43.7
People on dialysis can't work full-time. (F)	69.6	82.1	+ 12.5
Symptoms of uremia can look like depression. (T)	36.4	85.7	+ 49.3
Medicare covers transplant drugs forever. (F)	30.7	57.1	+ 26.4
Hemodialysis			
A catheter is the best kind of hemodialysis access. (F)	36.6	76.1	+ 39.5
Good dialysis does 15% of what healthy kidneys do. (T)	18.8	84.8	+ 66.0
You must do center hemodialysis the same days, times. (T)	43.0	64.1	+ 21.1
You must do home hemodialysis the same days, times. (F)	16.0	51.6	+ 35.6
Peritoneal			
Peritoneal dialysis requires a helper. (F)	28.0	76.1	+ 48.1
People who are blind cannot do peritoneal dialysis. (F)	30.6	80.0	+ 49.4
Hernias can be a problem on peritoneal dialysis. (T)	13.3	86.5	+ 73.2
It's harder to travel on peritoneal than hemodialysis. (F)	37.8	88.9	+ 51.1
Kidney Transplant			
Patients over 70 may get transplants. (T)	30.0	73.3	+ 43.3
Getting a kidney transplant cures kidney disease. (F)	46.5	75.0	+ 28.5
Anti-rejection medicines can damage the kidney. (T)	24.0	51.7	+ 27.7
Kidneys from those who have died work longer than from living donors. (F)	33.0	76.1	+ 43.1
TOTAL PERCENT OF QUESTIONS CORRECT	42.3%	68.8%	+ 26.5

*Only participants who answered True or False were included in the percentages. No missing values were included because participants could have failed to complete the post-test portion entirely or skipped a question. Participants who answered "Don't Know" were classified as answering the question incorrectly.

C. Knowledge By Course Topic

Knowledge by course topic



COURSE TOPIC	Pre-Test Mean # Correct (SD)	Post-Test Mean # Correct (SD)	Significance
Introduction to Kidney Disease	2.71 (1.1)	3.36 (0.9)	t = -5.78, p < .001
Diet and Kidney Disease	2.29 (1.1)	3.19 (0.9)	t = -7.16, p < .001
Financing and Coping with Kidney Disease	1.65 (1.2)	2.90 (1.2)	t = -8.29, p < .001
Hemodialysis	1.12 (1.0)	2.73 (1.0)	t = -12.42, p < .001
Peritoneal Dialysis	1.07 (1.2)	3.18 (1.2)	t = -13.39, p < .001
Kidney Transplant	1.31 (1.2)	2.68 (1.2)	t = -9.82, p < .001

***Participants were able to answer significantly more questions correctly in each topic post-class as compared to their pre-class scores.**

D. Mean Knowledge Questions Correct

	Mean Number Correct (SD)	Range
Pre-Test	10.12 (4.8)	0-21
Post-Test	16.65 (5.4)	0-24

*** Mean score out of a possible 24.**

*** We utilized a paired t-test to see if there were significant differences in knowledge from pre- to post-test. Participants had significantly improved knowledge from pre- to post-test, t = -10.82, p < .001.**

V. PEP Education Course Evaluations

A. Class Content

	Introduction to Kidney Disease	Diet and Kidney Disease	Financing and Coping	Hemodialysis	Peritoneal Dialysis	Transplantation	Handout materials
Excellent	53 (60.2%)	50 (57.5%)	46 (56.1%)	53 (63.1%)	49 (61.3%)	44 (64.7%)	67 (78.8%)
Good	34 (38.6%)	32 (36.8%)	33 (40.2%)	28 (33.3%)	29 (36.3%)	22 (32.4%)	17 (20.0%)
Fair	1 (1.1%)	5 (5.7%)	3 (3.7%)	3 (3.6%)	2 (2.5%)	2 (2.9%)	1 (1.2%)
Poor	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

B. Moderator/Speaker Quality

	Moderator	Professional speakers	Patient speakers
Excellent	73 (77.7%)	70 (74.5%)	64 (71.1%)
Good	21 (22.3%)	23 (24.5%)	25 (27.8%)
Fair	0 (0.0%)	1 (1.1%)	1 (1.1%)
Poor	0 (0.0%)	0 (0.0%)	0 (0.0%)

C. Program Format

	Length of the program	Length of each class topic	Number of topics per day	Time for asking questions	Time to talk with people with kidney disease and their families
Excellent	47 (50.0%)	47 (50.5%)	49 (52.7%)	64 (67.4%)	54 (59.3%)
Good	39 (41.5%)	40 (43.0%)	41 (44.1%)	30 (31.6%)	36 (39.6%)
Fair	6 (6.4%)	5 (5.4%)	3 (3.2%)	1 (1.1%)	0 (0.0%)
Poor	2 (2.1%)	1 (0.9%)	0 (0.0%)	0 (0.0%)	1 (1.1%)

D. Overall Quality

	Overall quality of the class in helping me make a decision about my treatment	Overall quality of the class in helping me cope with my kidney disease	Overall quality of the education offered
Excellent	64 (67.4%)	61 (64.9%)	72 (76.6%)
Good	29 (30.5%)	27 (28.7%)	22 (23.4%)
Fair	2 (2.1%)	6 (6.4%)	0 (0.0%)
Poor	0 (0.0%)	0 (0.0%)	0 (0.0%)

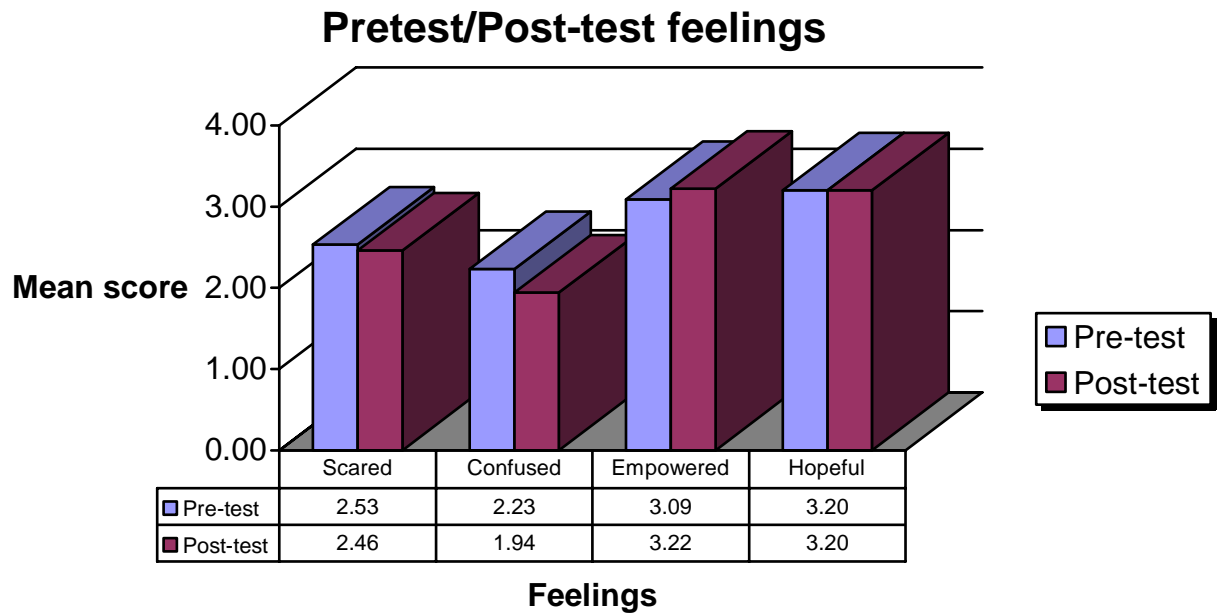
E. Referral

E1. If you knew someone with kidney disease, would you recommend these classes to him/her?

	Frequency	Percent
Yes	100	100.0%
No	0	0.0 %
Total	100	100.0%

F. Pre- and Post-Class Emotions

How do you feel right now? (1 less – 4 more)



After we conducted the paired t-test, the results indicated that there was a significant emotional change from pre-test to post-test, where participants' post-class feelings of confusion ($p=.01$) decreased. Participants reported being more empowered and less afraid, but these changes were not significant. Participants also reported being equally hopeful post-class.

G. Change in Post-Class Emotions

Did post-class feelings of fear/confusion/empowerment/hope vary as a function of age, sex, race, education level, whether they were currently on dialysis, whether they were living alone or with someone, or how many classes they attended?

First, I subtracted the post-class ratings of fear, confusion, empowerment, and hope from each person's pre-class rating to obtain a measure of emotional change during the PEP class. I then conducted t-tests and ANOVAs to determine if age, sex, race, education level, whether they were currently on dialysis, whether they were living alone or with someone, or how many classes they attended significantly predicted change in any of these emotional states. **Participants who were younger than 60 felt more empowered ($t=-3.50$, $p=.001$) than older participants, women were less confused ($t=-2.34$, $p=.02$) than men, and participants with a high school education or less were less afraid ($F=3.19$, $p=.05$) and less confused ($F=6.96$, $p=.002$) than participants with greater than a high school education, regarding kidney disease from pre- to post-class.**

Second, I repeated the analyses using only the participants' ratings of post-class fear, confusion, empowerment, and hope as dependent variables. **Younger participants were significantly more empowered ($t=3.20$, $p=.002$) and women ($t=-2.05$, $p=.04$) were significantly less confused about kidney disease post-class compared with older participants and women.**

T-Test

Group Statistics

	Age	N	Mean	Std. Deviation	Std. Error Mean
Using as scale of 1-4, how much do you feel scared (post)?	< 60	39	2.54	.969	.155
	60 +	43	2.47	1.008	.154
Using as scale of 1-4, how much do you feel confused (post)?	< 60	37	2.11	.936	.154
	60 +	42	1.88	.942	.145
Using as scale of 1-4, how much do you feel empowered (post)?	< 60	39	3.49	.601	.096
	60 +	45	2.93	.963	.144
Using as scale of 1-4, how much do you feel hopeful (post)?	< 60	38	3.21	.875	.142
	60 +	47	3.17	.940	.137

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Using as scale of 1-4, how much do you feel scared (post)?	Male	43	2.51	1.009	.154
	Female	42	2.43	.966	.149
Using as scale of 1-4, how much do you feel confused (post)?	Male	41	2.17	.998	.156
	Female	41	1.76	.830	.130
Using as scale of 1-4, how much do you feel empowered (post)?	Male	43	3.26	.819	.125
	Female	44	3.18	.896	.135
Using as scale of 1-4, how much do you feel hopeful (post)?	Male	43	3.30	.887	.135
	Female	45	3.13	.919	.137

VI. Demographics by Group Location

A. Age by Location

Age	St. Louis	Kansas City
< 20	0 (0.0%)	1 (3.0%)
20-24	1 (1.4%)	1 (3.0%)
25-29	1 (1.4%)	0 (0.0%)
30-34	3 (4.3%)	1 (3.0%)
35-39	2 (2.9%)	1 (3.0%)
40-44	3 (4.3%)	2 (6.1%)
45-49	2 (2.9%)	0 (0.0%)
50-54	8 (11.6%)	3 (9.1%)
55-59	13 (18.8%)	3 (9.1%)
60-64	10 (14.5%)	9 (27.3%)
65-69	8 (11.6%)	6 (18.2%)
70-74	7 (10.1%)	4 (12.1%)
75-79	6 (8.7%)	1 (3.0%)
80 +	5 (7.2%)	1 (3.0%)

*No significant differences by city

B. Sex by Location

Sex	St. Louis	Kansas City
Male	38 (52.8%)	16 (47.1%)
Female	34 (47.2%)	18 (52.9%)

*No significant differences by city

C. Race by Location

Race	St. Louis	Kansas City
Black	30 (42.3%)	6 (17.6%)
White	37 (52.1%)	24 (70.6%)
Hispanic	2 (2.8%)	2 (5.9%)
Other	2 (2.8%)	2 (5.9%)

*No significant differences by city

D. Education by Location

Education	St. Louis	Kansas City
Eighth grade or less	1 (1.4%)	2 (6.1%)
Some high school	10 (13.9%)	1 (3.0%)
Grad high school or GED	19 (26.4%)	12 (36.4%)
Some college	17 (23.6%)	12 (36.4%)
Completed college	17 (23.6%)	4 (12.1%)
Graduate school	8 (11.1%)	2 (6.1%)

*No significant differences by city

E. Living Arrangement by Location

Living arrangement	St. Louis	Kansas City
With Someone	59 (85.5%)	30 (88.2%)
Alone	10 (14.5%)	4 (11.8%)

*No significant differences by city

F. Current Employment Status by Location

Employment Status	St. Louis	Kansas City
Employed	20 (28.6%)	9 (26.5%)
Not employed	50 (71.4%)	25 (73.5%)

*No significant differences by city

VII. Treatment Information by Group Location:

A. Access Type by Location

Access Type	St. Louis	Kansas City
No Access	56 (81.2%)	22 (68.8%)
Arm	8 (61.5%)	3 (30.0%)
Chest/Neck	5 (38.5%)	6 (60.0%)
Arm/Chest/Neck	0 (0.0%)	1 (10.0%)
Stomach	0 (0.0%)	0 (0.0%)

*No significant differences by city.

B. Dialysis Type by Location

Dialysis Type	St. Louis	Kansas City
None	60 (89.6%)	25 (78.1%)
Center Hemodialysis	7 (100.0%)	5 (83.3%)
(Cycler) CCPD	0 (0.0%)	1 (16.7%)
CAPD	0 (0.0%)	0 (0.0%)

*No significant differences by city.

C. Kidney Transplant Interest by Location

Plan to Receive Kidney Transplant	St. Louis	Kansas City
Yes	26 (43.3%)	15 (48.4%)
No/Don't Know	34 (56.7%)	16 (51.6%)

*No significant differences by city.

D. Dialysis Choice by Location

Dialysis Type	St. Louis	Kansas City
Center Hemodialysis	17 (27.9%)	8 (27.6%)
Peritoneal Dialysis	32 (52.5%)	8 (27.6%)
Home Hemodialysis	3 (4.9%)	5 (17.2%)
No Treatment	0 (0.0%)	0 (0.0%)
Don't know	9 (14.8%)	8 (27.6%)

*Participants in St. Louis were significantly more likely to choose peritoneal dialysis as their treatment ($p=.03$).

E. Pre- and Post- Class Test Scores by Location

	St. Louis	Kansas City
Pre-test mean score	11.03	8.35
Post-test mean score	16.64	16.12

*No significant differences by city. Although the changes in knowledge from pre- to post-test are not significant by city, please note that Kansas City was less knowledgeable at pre-test.

F. Pre- and Post-Class Emotion by Location

	St. Louis	Kansas City
Pre-test scared	2.43	2.74
Post-test scared	2.38	2.63
Pre-test confused	2.00	2.71
Post-test confused	1.76	2.35
Pre-test empowered	3.13	3.03
Post-test empowered	3.17	3.30
Pre-test hopeful	3.25	3.09
Post-test hopeful	3.21	3.17

*No significant differences by city.

VIII. Participant Recommendations for Improvement:

A. Recommendations for Improvement: Additional Topic Discussion

What topic did you hope to learn about but didn't?

- More information on qualifications and set-up process for home hemodialysis.
- Actual criteria for health monitoring.
- Would love to have a dietician with meal plans presented at sometime. Learning how to evaluate labs and diet intake, etc.
- Would have liked more information on a diet to follow to put off kidney failure as long as possible. What I can eat and cannot eat. More specific examples.
- Follow up sessions on diet and generally taking care of your health would be valuable.
- Transportation and PD
- I learned the difference between a graft, fistula, and catheter, but which one is the best for hemodialysis?
- How to apply for SSI or disability 'social security'.

B. Recommendations for Improvement: General Class

- Work with and present with "Donate Life" or similar organ donation program.
- Field trip to a dialysis center.
- More discussion of home hemodialysis earlier in the program versus just in the hemodialysis module.
- More water, less soda
- Some kidney diabetic friendly fruit/veggie snacks as alternative to cookies (carbs/sugars) only
- I am rather hard of hearing and found some of the speakers very hard to hear.
- Would like to be able to buy cookbooks here. Enjoy classes.
- The class should be all done in one day.
- Maybe the presentation folks should be part of the handout package. However the literature included are great, just need someone to 'highlight' the key points.
- This isn't the place, but I could use something about caretaker issues/support.

C. Other Comments

- Thank you for this program. (13)
- Very good program. (11)
- Very informative. (9)
- Would recommend to others. (2)
- This is one of the finest learning sessions I have attended.
- I learned everything I wanted though I know there is more to learn. Class was very helpful.
- The instructor was very knowledgeable about the benefits as well as the topic of dialysis.
- Actual patients with the disease, being able to talk to them was great.
- In the literature, I find discrepancies regarding the clarity which is frustrating. For instance, I read in the literature that it's ok for lemonade, limeade, water, but it nixes the ideas of Wyler's powdered lemonade, which can theoretically fall under the lemonade category.
- Social worker was excellent. It was great.
- The dialysis options workshops with patients and speakers were very helpful.
- This class was inspiring.

- The classes were very helpful and resources were very good. Speakers and voluntary patients very helpful.
- The classes were very intellectual and made me understand some of the things I was most concerned.
- Great coordination and speakers.
- I'm not quite as afraid now.
- Comfortable atmosphere.
- Vicky did an outstanding job setting this conference up. It was time well spent.