

# ***Missouri Kidney Program***

## ***Center for Renal Education***

### ***Patient Education Program Summary Report***



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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, 2006 to June 30, 2007, 114 individuals diagnosed with chronic renal disease attended PEP classes.

## **Sample Selection**

This report examines only the survey data collected from the 101 individuals with chronic renal failure who completed all or at least some portion of the survey. Thirteen 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 almost 63 years, with most participants being older than age 50 (82%).
- Most participants were Caucasian (69%) or African-American (27%). Compared to last year, the number of African Americans attending the PEP program decreased from 34% to 27%.
- There were more males (56%) than females (44%) attending the classes.
- The majority had not completed college (69%).
- The majority were not employed at pre-test (65%).
- Most participants (71%) had been diagnosed with kidney disease in the last 5 years.

## **Dialysis and Access**

- Most PEP participants were not on dialysis at pre-test (90%).
- The 10 individuals who were beginning or receiving dialysis received either center hemodialysis (70%) or peritoneal dialysis (20%), with one person not reporting (10%). Of the 21 PEP participants who had received an access for dialysis at pre-test, they had the access placed either in their arm (48%), chest/neck area (29%), stomach (14%), or both arm and chest/neck area (9%).
- When comparing dialysis preferences from pre- to post-test, participants' preference for peritoneal dialysis (15% vs. 36%,  $p < .001$ ) significantly increased, while their interest in center (25% vs. 34%,  $p > .05$ ) and home (8% vs. 7%,  $p > .05$ ) hemodialysis did not significantly change.
- Participants who were employed were more likely to prefer peritoneal dialysis (60% vs. 26%,  $p = .004$ ), while participants who were not employed were more likely to prefer center hemodialysis (42% vs. 16%,  $p = .02$ ).

## **Kidney Transplant**

- Although not significant, the percentage of participants who were planning on receiving a kidney transplant increased from pre-test to post-test (46% vs. 54%,  $p > .05$ ).

## **Knowledge 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 15 questions answered correctly out of 24 possible). PEP class participants' mean knowledge significantly improved from pre- to post-class (from 46% to 80% of questions answered correctly,  $t = -7.33$ ,  $p < .001$ ).
- From pre- to post-test, the greatest increases in knowledge were for the specific questions:
  - People who are blind cannot do peritoneal dialysis (22% vs. 85% correct)
  - Hernias can be a problem on peritoneal dialysis (21% vs. 81% correct)
  - Good dialysis does 15% of what healthy kidneys do (30% vs. 86% correct)
  - Patients over 70 may get transplants (36% vs. 86% correct)

### **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,  $p < .001$ . 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, finances, and transplant.

### **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. (54% answered incorrectly)
  - Home hemodialysis does not need to be done on the same days at the same times. (44% answered incorrectly)

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

- Overall, participants' 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 attending a weekend education program.*

### **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 did not significantly increase from pre-test (46%) to post-test (54%).*
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 (15% vs. 36%) significantly increased. There was also a significant decrease in the number of PEP patients who were unsure about which type of dialysis they would have (52% vs. 23%).*
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.** *From pre- to post-class, female participants were significantly less afraid at post-test compared to male participants. Fear did not vary by age, race, education, 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? **No.** *From pre- to post-class, confusion 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.*
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? **No.** *From pre- to post-class, empowerment 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.*

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.** *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: 114 (100%)  
 Total participants with renal disease who completed the pre evaluation and test: 98 (86%)\*  
 Participants with renal disease who completed the post evaluation and test: 79 (69%)\*

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

### A. Participants at each Location

Location	Frequency	Percent
St. Louis	52	45.6%
Kansas City	62	54.4%
<b>Total</b>	<b>114</b>	<b>100.0%</b>

### B. Class attendance of participants:

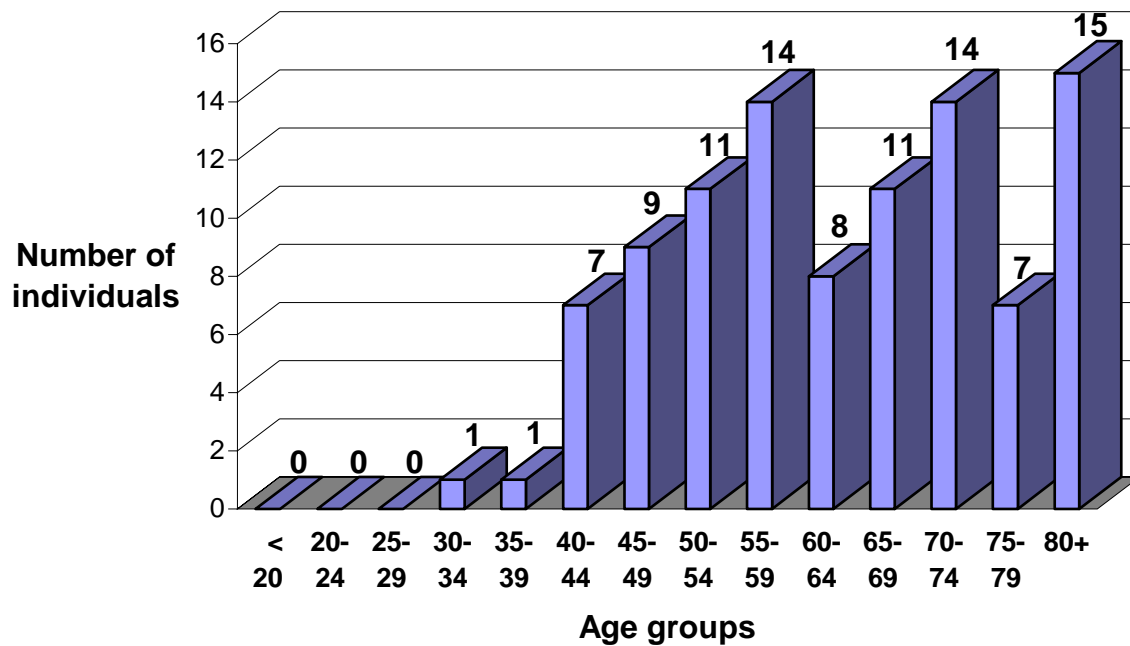
	Topic 1	Topic 2	Topic 3	Topic 4	Topic 5	Topic 6
<b>Yes</b>	85 (74.6%)	88 (77.2%)	81 (71.1%)	84 (73.7%)	83 (72.8%)	71 (62.3%)
<b>No</b>	29 (25.4%)	26 (22.8%)	33 (28.9%)	30 (26.3%)	31 (27.2%)	43 (37.7%)

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: 62.9 years (SD = 13.3 years)

### B. Gender

Male	57	56.4%
Female	44	43.6%
<b>Total</b>	<b>101</b>	<b>100.0%</b>

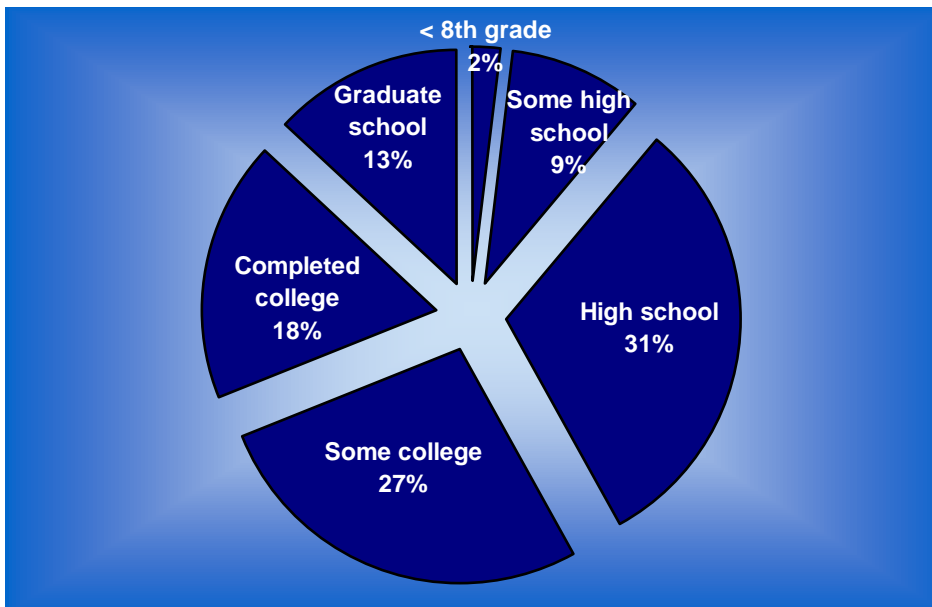
### C. Race

White	66	69.4%
Black	26	27.4%
Hispanic	2	2.1%
Other	1	1.1%
<b>Total</b>	<b>95</b>	<b>100.0%</b>

### ***D. Living Status***

Living with someone	79	82.3%
Living alone	17	17.7%
<b>Total</b>	<b>96</b>	<b>100.0%</b>

### ***E. Education***



**N = 99**

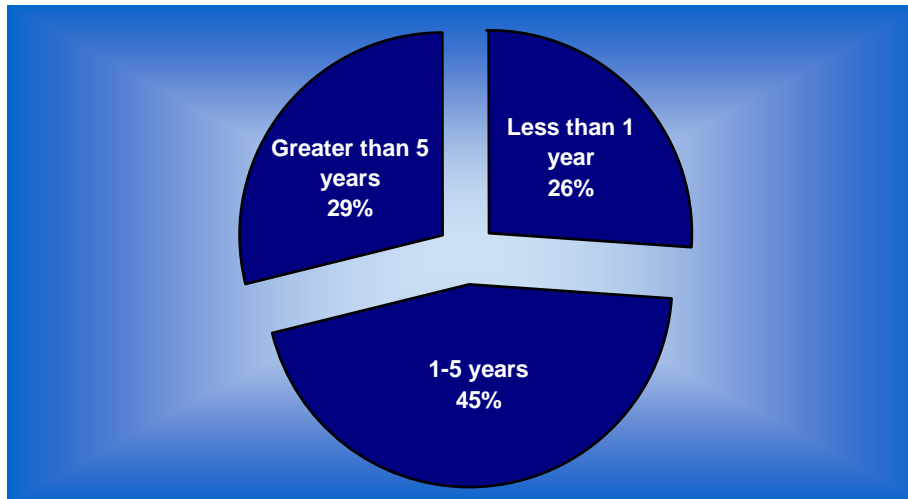
### ***F. Employment***

Not employed	64	64.6%
Employed	35	35.4%
<b>Total</b>	<b>99</b>	<b>100.0%</b>

### III. Treatment Information:

#### A. Diagnosis Information

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



N = 92

#### B. Dialysis and Access

B1. Where is your dialysis access?

	Frequency	Percent
No Access	77	78.6%
Access	21	21.4%
<b>Access type</b>		
Arm	10	47.6%
Chest/Neck	6	28.6%
Stomach	3	14.3%
Arm and Chest/Neck	2	9.5%
<b>Total</b>	<b>21</b>	<b>100.0%</b>

B2. When did you start dialysis?

	Frequency	Percent
Not yet on dialysis	86	89.6%
On dialysis	10	10.4%
<b>Began dialysis</b>		
2006	5	62.5%
2007	3	37.5%
<b>Total</b>	<b>8</b>	<b>100.0%</b>

(Missing = 2)

B3. What type of dialysis do you do?

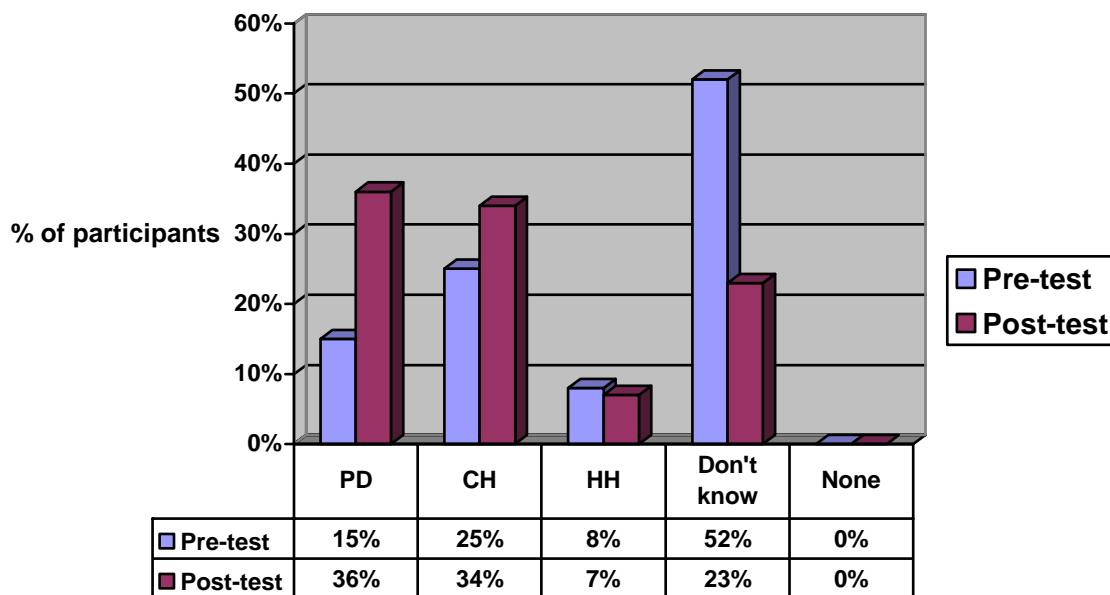
**CH** = Center Hemodialysis   **HH** = Home Hemodialysis   **PD** = Peritoneal Dialysis

Dialysis type	Frequency	Percent
CH	7	77.8%
PD	2	22.2%
HH	0	0.0%
<b>Total</b>	<b>9</b>	<b>100.0%</b>

(Missing=1)

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 (15% vs. 36%,  $p < .001$ ) significantly increased, while center hemodialysis (25% vs. 34%,  $p > .05$ ) and home hemodialysis (8% vs. 7%,  $p > .05$ ) 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 (52% vs. 23%,  $p < .001$ ).

### ***C. Kidney Transplant:***

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

<b>% yes</b>	<b>Frequency</b>	<b>Percent</b>
Pre-test	37	45.7%
Post-test	44	54.3%

**p>.05**

**\*Only participants who answered this question at both pre-test and post-test were included in the analysis (n=81)**

**Using the McNemar test, we determined that there was no significant change in interest in transplant from pre-test (46%) to post-test (54%).**

The 9 participants, whose interest in transplant increased from pre- to post-test, were primarily male (78%) and Caucasian (63%), with greater than a high school education (78%), and a mean age of 64 years (SD=11.2). Two participants regressed from wanting to get a transplant at pre-test to uncertainty at post-test.

#### 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 was significantly associated, with PEP participants younger than age 60 more likely to want a transplant at pre-test. **In logistic regression analyses, patients who were younger than 60 years (73% vs. 20%,  $p<.001$ ) 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>	<b>Median Hours</b>	<b>Range</b>
Reading written materials about kidney disease and treatment	1	0-20
Talking with family and friends about kidney disease and treatment	1	0-15
Talking with your doctor about kidney disease and treatment	1	0-100
Talking with a patient educator about kidney disease and treatment	0	0-20
Talking with a patient who was on dialysis or received a transplant	0	0-24
Browsing Internet websites about kidney disease and treatment	0	0-10
Watching videos about kidney disease and treatment	0	0-10
Attending support groups for people with kidney disease	0	0-10
<b>OVERALL*</b>	7.25	0-106

\*Participants could have used more than one type of education

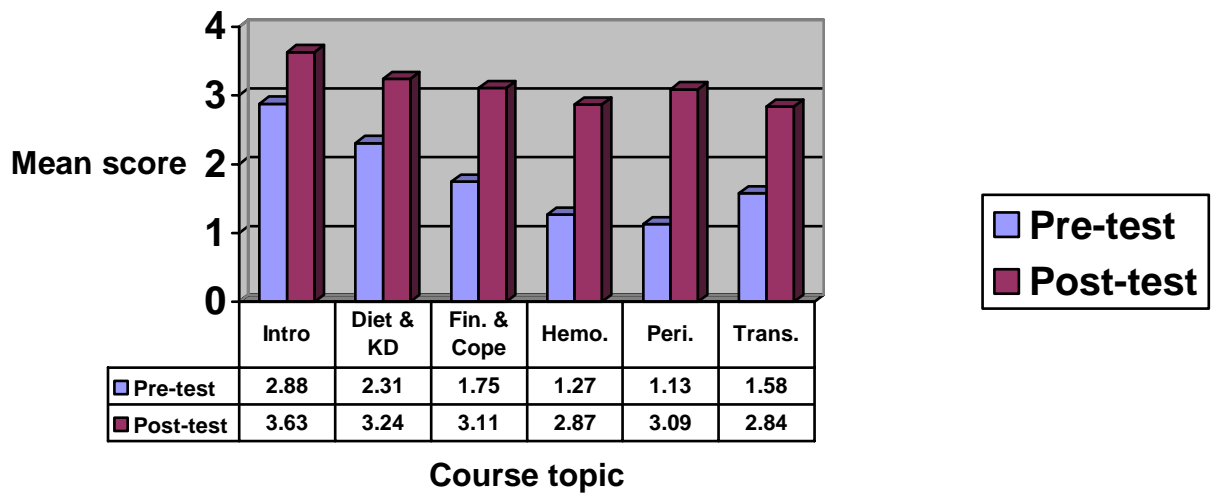
### B. Pre- and Post-Class Knowledge Survey

<b>Question</b>	<b>Pre-Test % Correct</b>	<b>Post-Test % Correct</b>	<b>% Change</b>
<b>Introduction to Kidney Disease</b>			
Kidneys control blood pressure and anemia. (T)	75.0	88.4	+ 13.4
Poor appetite and headache can be symptoms of uremia. (T)	63.9	100.0	+ 36.1
Nothing can slow down how fast kidneys fail. (F)	72.2	88.4	+ 16.2
People with kidney failure can choose not to treat it. (T)	74.3	87.1	+ 12.8
<b>Diet and Kidney Disease</b>			
Transplant patients can eat anything they want. (F)	70.3	82.1	+ 11.8
People on peritoneal dialysis must eat more protein than those on hemodialysis. (T)	21.9	67.2	+ 45.3
Fluid gains don't matter because dialysis takes it off. (F)	73.3	91.5	+ 18.2
Over-the-counter medicines and herbs are safe to use. (F)	68.0	95.8	+ 27.8
<b>Financing and Coping with Kidney Disease</b>			
Medicare covers a live donor's surgery. (T)	29.4	78.5	+ 49.1
People on dialysis can't work full-time. (F)	70.6	89.4	+ 18.8
Symptoms of uremia can look like depression. (T)	50.7	86.4	+ 35.7
Medicare covers transplant drugs forever. (F)	25.4	64.6	+ 39.2
<b>Hemodialysis</b>			
A catheter is the best kind of hemodialysis access. (F)	32.0	78.9	+ 46.9
Good dialysis does 15% of what healthy kidneys do. (T)	30.1	85.9	+ 55.8
You must do center hemodialysis the same days, times. (T)	45.3	67.6	+ 22.3
You must do home hemodialysis the same days, times. (F)	23.6	56.3	+ 32.7
<b>Peritoneal</b>			
Peritoneal dialysis requires a helper. (F)	26.1	74.6	+ 48.5
People who are blind cannot do peritoneal dialysis. (F)	22.2	84.5	+ 62.3
Hernias can be a problem on peritoneal dialysis. (T)	21.1	80.9	+ 59.8
It's harder to travel on peritoneal than hemodialysis. (F)	48.5	81.7	+ 33.2
<b>Kidney Transplant</b>			
Patients over 70 may get transplants. (T)	35.5	86.4	+ 50.9
Getting a kidney transplant cures kidney disease. (F)	55.7	67.2	+ 11.5
Anti-rejection medicines can damage the kidney. (T)	20.7	45.5	+ 24.8
Kidneys from those who have died work longer than from living donors. (F)	55.7	90.0	+ 34.3
<b>TOTAL PERCENT OF QUESTIONS CORRECT</b>	<b>46.3%</b>	<b>80.0%</b>	<b>+ 33.7</b>

\*Participants who attended sessions that corresponded to each section of questions 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	2.88 (1.1)	3.63 (0.6)	t = -5.44, p < .001
Diet and Kidney Disease	2.31 (1.2)	3.24 (0.8)	t = -6.23, p < .001
Financing and Coping with Kidney Disease	1.75 (1.3)	3.11 (1.1)	t = -7.49, p < .001
Hemodialysis	1.27 (1.2)	2.87 (0.9)	t = -9.58, p < .001
Peritoneal Dialysis	1.13 (1.3)	3.09 (1.2)	t = -10.66, p < .001
Kidney Transplant	1.58 (1.2)	2.84 (0.9)	t = -8.13, 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	10.02 (5.2)	0-24
Post-Test	15.43 (5.9)	2-24

**\* 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 = -7.33, 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	46 (58.2%)	44 (56.4%)	32 (47.1%)	44 (57.9%)	45 (60.0%)	41 (64.1%)	47 (61.0%)
Good	31 (39.2%)	32 (41.0%)	32 (47.1%)	32 (42.1%)	30 (40.0%)	22 (34.4%)	30 (39.0%)
Fair	1 (1.3%)	2 (2.6%)	3 (4.4%)	0 (0.0%)	0 (0.0%)	1 (1.6%)	0 (0.0%)
Poor	1 (1.3%)	0 (0.0%)	1 (1.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

### B. Moderator/Speaker Quality

	Moderator	Professional speakers	Patient speakers
Excellent	54 (63.5%)	50 (59.5%)	47 (61.8%)
Good	31 (36.5%)	33 (39.3%)	27 (35.5%)
Fair	0 (0.0%)	1 (1.2%)	2 (2.6%)
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	37 (43.5%)	35 (42.2%)	38 (45.2%)	38 (45.2%)	42 (51.2%)
Good	41 (48.2%)	44 (53.0%)	43 (51.2%)	43 (51.2%)	33 (40.2%)
Fair	6 (7.1%)	3 (3.6%)	3 (3.6%)	3 (3.6%)	6 (7.3%)
Poor	1 (1.2%)	1 (1.2%)	0 (0.0%)	0 (0.0%)	1 (1.2%)

### 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	51 (60.0%)	44 (53.0%)	53 (64.6%)
Good	34 (40.0%)	37 (44.6%)	28 (34.1%)
Fair	0 (0.0%)	2 (2.4%)	1 (1.2%)
Poor	0 (0.0%)	0 (0.0%)	0 (0.0%)

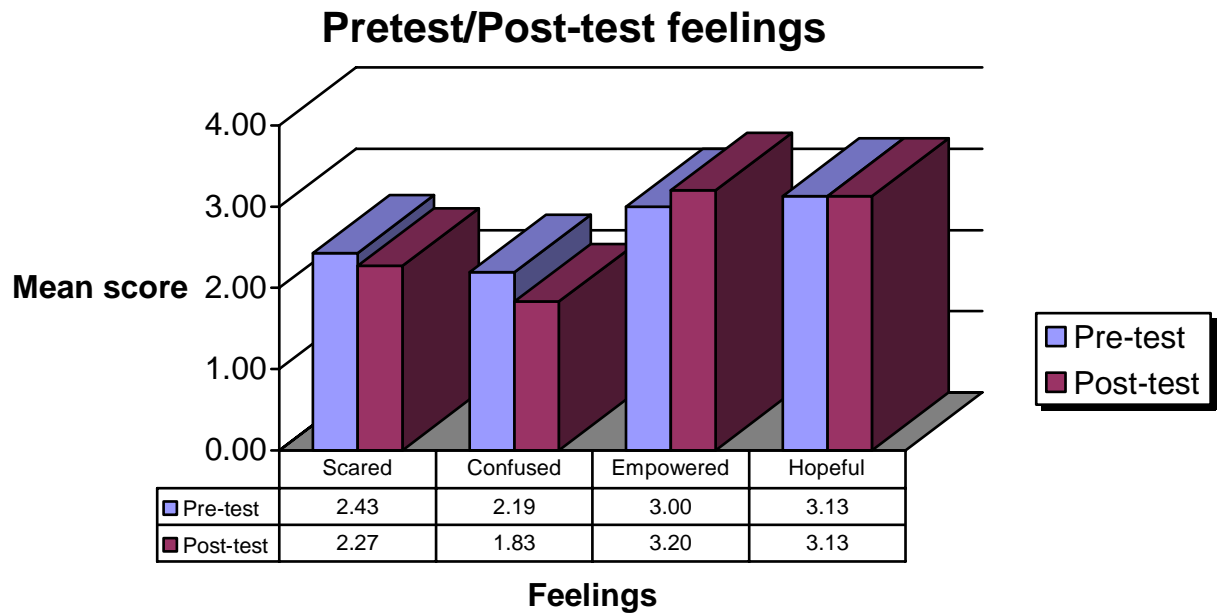
## ***E. Referral***

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

	Frequency	Percent
Yes	85	100.0%
No	0	0.0 %
<b>Total</b>	<b>85</b>	<b>100.0%</b>

## ***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 ( $p < .001$ ) 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. **Female participants were more likely to report a reduction in fear from pre-test to post-test compared to men ( $t=-2.33$ ,  $p=.02$ ).**

Second, I repeated the analyses using only the participants' ratings of post-class fear, confusion, empowerment, and hope as dependent variables.

**Participants with greater than a high school education were less confused about kidney disease at post-test than participants with a high school education or less ( $F=3.44$ ,  $p=.04$ ).**

	Education	N	Mean	Std. Deviation	Std. Error
Using a scale of 1-4, how much do you feel scared (post)?	HS or less	30	2.40	.894	.163
	Some College	23	2.13	1.014	.211
	College Grad	27	2.15	.949	.183
Using a scale of 1-4, how much do you feel confused (post)?	HS or less	29	2.10	.860	.160
	Some College	23	1.83	.984	.205
	College Grad	26	1.50	.707	.139
Using a scale of 1-4, how much do you feel empowered (post)?	HS or less	30	3.03	.850	.155
	Some College	23	3.22	.951	.198
	College Grad	27	3.30	.823	.158
Using a scale of 1-4, how much do you feel hopeful (post)?	HS or less	29	3.03	1.017	.189
	Some College	22	3.14	.889	.190
	College Grad	27	3.22	.698	.134

**Participants who lived with someone were less confused ( $t=2.61$ ,  $p=.01$ ) and more empowered ( $t=-2.10$ ,  $p=.04$ ) about kidney disease at post-test than participants who lived alone.**

	Living Arrangement	N	Mean	Std. Deviation	Std. Error
Using a scale of 1-4, how much do you feel scared (post)?	Alone	14	2.64	.929	.248
	With someone	64	2.17	.935	.117
Using a scale of 1-4, how much do you feel confused (post)?	Alone	14	2.36	.842	.225
	With someone	64	1.70	.849	.106
Using a scale of 1-4, how much do you feel empowered (post)?	Alone	14	2.79	.802	.214
	With someone	64	3.30	.830	.104
Using a scale of 1-4, how much do you feel hopeful (post)?	Alone	15	2.80	.676	.175
	With someone	62	3.24	.862	.110

## VI. Demographics by Group Location

### *A. Age by Location*

Age	St. Louis	Kansas City
< 20	0 (0.0%)	0 (0.0%)
20-24	0 (0.0%)	0 (0.0%)
25-29	0 (0.0%)	0 (0.0%)
30-34	1 (2.0%)	0 (0.0%)
35-39	1 (2.0%)	0 (0.0%)
40-44	3 (6.0%)	4 (8.3%)
45-49	2 (4.0%)	7 (14.6%)
50-54	6 (12.0%)	5 (10.4%)
55-59	9 (18.0%)	5 (10.4%)
60-64	5 (10.0%)	3 (6.3%)
65-69	8 (16.0%)	3 (6.3%)
70-74	4 (8.0%)	10 (20.8%)
75-79	2 (4.0%)	5 (10.4%)
80 +	9 (18.0%)	6 (12.5%)

\*No significant differences by city

### *B. Sex by Location*

Sex	St. Louis	Kansas City
Male	30 (57.7%)	27 (55.1%)
Female	22 (42.3%)	22 (44.9%)

\*No significant differences by city

### *C. Race by Location*

Race	St. Louis	Kansas City
Black	14 (28.6%)	12 (26.1%)
White	35 (71.4%)	31 (67.4%)
Hispanic	0 (0.0%)	2 (4.3%)
Other	0 (0.0%)	1 (2.2%)

\*No significant differences by city

### *D. Education by Location*

Education	St. Louis	Kansas City
Eighth grade or less	1 (2.0%)	1 (2.0%)
Some high school	2 (4.0%)	7 (14.3%)
Grad high school or GED	17 (34.0%)	13 (26.5%)
Some college	13 (26.0%)	14 (28.6%)
Completed college	8 (16.0%)	10 (20.4%)
Graduate school	9 (18.0%)	4 (8.2%)

\*No significant differences by city

### ***E. Living Arrangement by Location***

<b>Living arrangement</b>	<b>St. Louis</b>	<b>Kansas City</b>
With Someone	38 (77.6%)	41 (87.2%)
Alone	11 (22.4%)	6 (12.8%)

\*No significant differences by city

### ***F. Current Employment Status by Location***

<b>Employment Status</b>	<b>St. Louis</b>	<b>Kansas City</b>
Employed	18 (35.3%)	17 (35.4%)
Not employed	33 (64.7%)	31 (64.6%)

\*No significant differences by city

## VII. Treatment Information by Group Location:

### A. Access Type by Location

Access Type	St. Louis	Kansas City
No Access	41 (78.8%)	36 (78.3%)
Arm	7 (63.6%)	3 (30.0%)
Chest/Neck	2 (18.2%)	4 (40.0%)
Arm/Chest/Neck	0 (0.0%)	2 (20.0%)
Stomach	2 (18.2%)	1 (10.0%)

\*No significant differences by city. Low cell count.

### B. Dialysis Type by Location

Dialysis Type	St. Louis	Kansas City
None	47 (90.4%)	39 (88.6%)
Center Hemodialysis	2 (50.0%)	5 (100.0%)
Peritoneal Dialysis	2 (50.0%)	0 (0.0%)
Home Hemodialysis	0 (0.0%)	0 (0.0%)

\*No significant differences by city. Low cell count.

### C. Kidney Transplant Interest by Location

Plan to Receive Kidney Transplant	St. Louis	Kansas City
Yes	25 (55.6%)	19 (52.8%)
No/Don't Know	20 (44.4%)	17 (47.2%)

\*No significant differences by city.

### D. Dialysis Choice by Location

Dialysis Type	St. Louis	Kansas City
Center Hemodialysis	16 (33.3%)	12 (34.3%)
Peritoneal Dialysis	19 (39.6%)	11 (31.4%)
Home Hemodialysis	3 (6.3%)	3 (8.6%)
No Treatment	0 (0.0%)	0 (0.0%)
Don't know	10 (20.8%)	9 (25.7%)

\*No significant differences by city.

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

	St. Louis	Kansas City
Pre-test mean score	9.40	10.51
Post-test mean score	15.25	15.38

\*No significant differences by city.

### ***F. Pre- and Post-Class Emotion by Location***

	<b>St. Louis</b>	<b>Kansas City</b>
Pre-test scared	2.53	2.48
Post-test scared	2.16	2.32
Pre-test confused	2.19	2.21
Post-test confused	1.78	1.86
Pre-test empowered	3.13	2.93
Post-test empowered	3.28	3.05
Pre-test hopeful	3.20	3.02
Post-test hopeful	3.12	3.14

\*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?

- Diet. (3)
- Nutritionist and info about types of treatment.
- If coffee or tea are harmful drinks.
- Payment for treatments, more examples.
- Finances.
- More about finances. I am already on Medicare and Medicaid. I have no one to help me financially and I'm very concerned about the cost.
- Transplant.

### *B. Other Comments*

- Class topics were discussed and presented very well and very informative. (10)
- Very good program. (10)
- Thank you. (9)
- All topics were covered very well. (7)
- An extremely helpful program. (2)
- Thanks for taking the time to organize this class, it was incredibly helpful.
- I missed the Saturday class because of work, I would like to take classes again.
- Didn't know food was so important to kidneys and blood pressure. Was very good.
- I just want to add from a prospective of a family member of someone with kidney failure. This was an excellent class and presentation and I learned a lot, especially interesting regarding the areas that don't apply to us. Thank you.
- The ladies are very good speakers. Very informational. I like the patient testimonial of each type of dialysis.
- Best part of today was the patient speakers! Great idea! Very informative! Very helpful! Nice people! Great choices!
- Learned a lot.
- I really appreciate the time and effort that the presenters put into the sessions. I especially appreciate the opportunity to talk with people who have actually "survived" transplants and dialysis. Great program! I'd like to present/participate in the future. Maybe I can help someone feel better about their condition and their future.
- The classes were very professional, each topic was covered, important. information need to help me understand about, and all persons are not the same.
- God bless you and what you do.
- Will recommend.
- I wish I had known about this long ago. I would have understood the problems better.
- I wish all doctors insisted on this class.
- Very glad I came.
- Karen did an excellent job. She should get a 10+ rating – very helpful and nice. Loved the treats. Chairs uncomfortable (sorry).