

# ***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, 2007 to June 30, 2008, 125 individuals diagnosed with chronic renal disease attended PEP classes.

## **Sample Selection**

This report examines all survey data collected from all individuals with chronic renal failure who completed all or at least some portion of the survey. 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 16.0 (SPSS, 2008). All figures and tables were prepared using SPSS and Microsoft Word 2007. 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 61 years, with most participants being older than age 50 (79%).
- Most participants were Caucasian (68%) or African-American (27%). Compared to last year, the number of African Americans attending the PEP program stayed the same.
- There were more males (55%) than females (45%) attending the classes.
- The majority had not completed college (72%).
- The majority were not employed at pre-test (70%).
- Most participants (78%) had been diagnosed with kidney disease in the last 5 years.

## **Dialysis and Access**

- Most PEP participants were not on dialysis at pre-test (88%).
- All but 1 of the 15 individuals were on center hemodialysis (93%). The other person was on cyclor (7%).
- Of the 23 PEP participants who had received an access for dialysis at pre-test, they had the access placed either in their arm (39%), chest/neck area (30%), stomach (9%), or both arm and chest/neck area (22%).
- When comparing dialysis preferences from pre- to post-test, participants' preference for peritoneal dialysis (12% vs. 37%,  $p < .001$ ) significantly increased, while their interest in center (15% vs. 21%,  $p > .05$ ) and home (10% vs. 8%,  $p > .05$ ) hemodialysis did not significantly change.
- Participants who were not employed were more likely to prefer home hemodialysis (89% vs. 11%,  $p < .001$ ).

## **Kidney Transplant**

- The percentage of participants who were planning on receiving a kidney transplant increased from pre-test to post-test (49% vs. 60%,  $p < .001$ ).

## **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 (13 versus 17 questions answered correctly out of 24 possible). PEP class participants' mean knowledge significantly improved from pre- to post-class (from 54% to 71% of questions answered correctly,  $t = -3.98$ ,  $p < .001$ ).
- From pre- to post-test, the greatest increases in knowledge were for the specific questions:
  - Medicare covers a live donor's surgery (37% vs. 84% correct)
  - Good dialysis does 15% of what healthy kidneys do (46% vs. 90% correct)
  - Patients over 70 may get transplants (41% vs. 85% 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 scared about their disease at post-test,  $p < .05$ . There was no change in participants' hopefulness from pre-test to post-test,  $p > .05$ .
- Recommendations for improvement from participants included additional discussion of nutrition and diet and insurance coverage.

### **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:
  - Medicare covers transplant drugs forever if you have Medicare due to kidney failure only. (54% answered incorrectly)
  - Home hemodialysis does not need to be done on the same days at the same times. (50% 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 decrease, but their hopefulness does not 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? **Yes.** *The percentage of PEP class participants who were planning on receiving a kidney transplant significantly increased from pre-test (49%) to post-test (60%).*
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 (12% vs. 37%) 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 (63% vs. 32%).*
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 at post-test? **Yes.** *Type of dialysis they would choose at post-test was only significantly different by race ( $p=.014$ ). Caucasian patients were more likely to pick center hemodialysis (36%) compared to African American (15.7%), whereas African Americans were more likely to choose peritoneal dialysis (47.1%) compared to Caucasians (20%).*
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, Hispanic participants were significantly less afraid at post-test compared to participants of other races. 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 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:	125	(100%)
Total participants with renal disease who completed the pre evaluation and test:	104	(83%)*
Participants with renal disease who completed the post evaluation and test:	98	(78%)*
Total participants that attended all six sessions:	83	(66%)

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

### A. Participants at each Location

Location	Frequency	Percent
St. Louis	52	41.6%
Kansas City	73	58.4%
<b>Total</b>	<b>125</b>	<b>100.0%</b>

### B. Class attendance of participants:

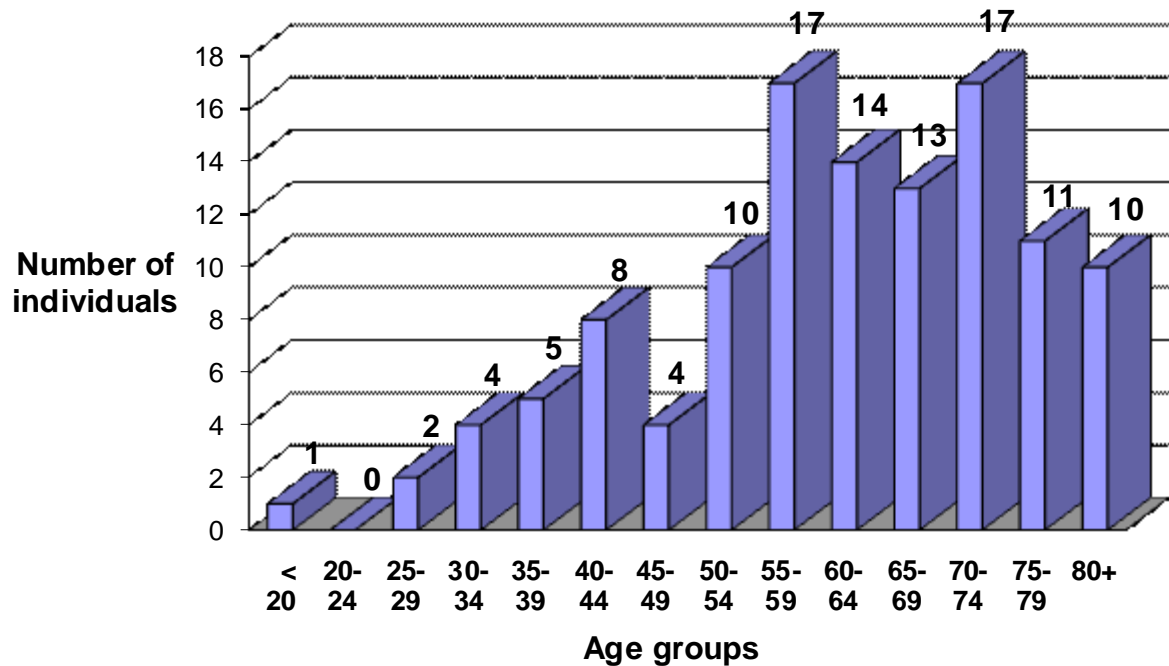
	Topic 1	Topic 2	Topic 3	Topic 4	Topic 5	Topic 6
<b>Yes</b>	109 (87.2%)	112 (89.6%)	109 (87.2%)	108 (86.4%)	110 (88.0%)	99 (79.2%)
<b>No</b>	16 (12.8%)	13 (10.4%)	16 (12.8%)	17 (13.6%)	15 (12.0%)	26 (20.8%)

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: 60.9 years (SD = 15.1 years)

### B. Gender

Male	69	55.2%
Female	56	44.8%
<b>Total</b>	<b>125</b>	<b>100.0%</b>

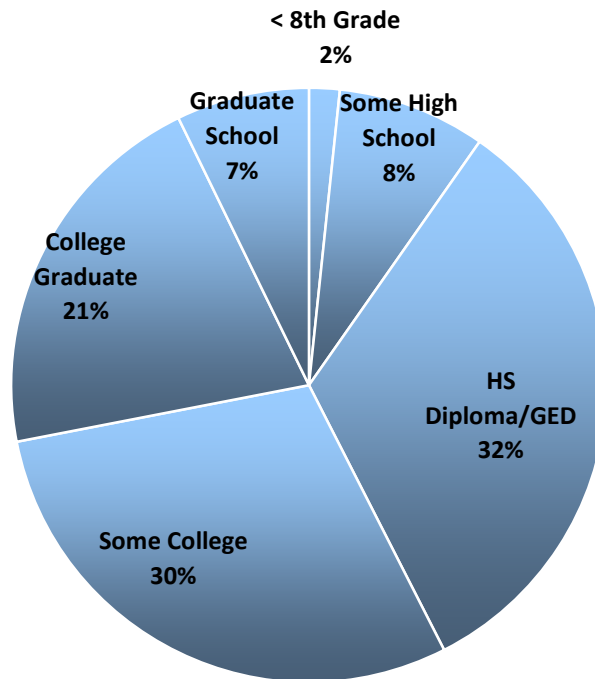
### C. Race

White	80	67.8%
Black	32	27.2%
Hispanic	3	2.5%
Other	3	2.5%
<b>Total</b>	<b>118</b>	<b>100.0%</b>

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

Living with someone	97	79.5%
Living alone	25	20.5%
<b>Total</b>	<b>122</b>	<b>100.0%</b>

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



N=125

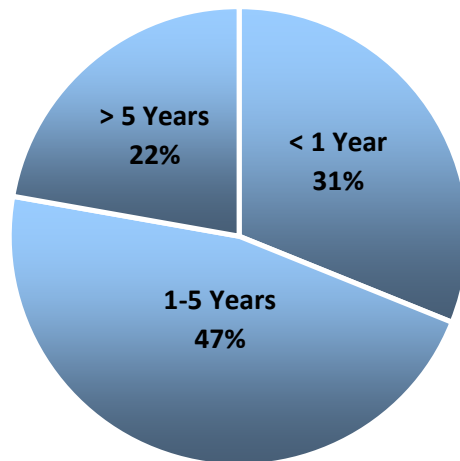
### ***F. Employment***

Not employed	87	70.2%
Employed	37	29.8%
<b>Total</b>	<b>124</b>	<b>100.0%</b>

### III. Treatment Information:

#### A. Diagnosis Information

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



N = 113

#### B. Dialysis and Access

B1. Where is your dialysis access?

	Frequency	Percent
No Access	101	80.8%
Access	24	19.2%
<b>Access type</b>		
Arm	9	39.1%
Chest/Neck	7	30.4%
Arm and Chest/Neck	5	21.7%
Stomach	2	8.7%
<b>Total</b>	<b>23</b>	<b>100.0%</b>

(Missing = 1)

B2. When did you start dialysis?

	Frequency	Percent
Not yet on dialysis	110	88.0%
On dialysis	15	12.0%
<b>Began dialysis</b>		
2004/2005	2	13.3%
2007	8	53.3%
2008	5	33.3%
<b>Total</b>	<b>15</b>	<b>100.0%</b>

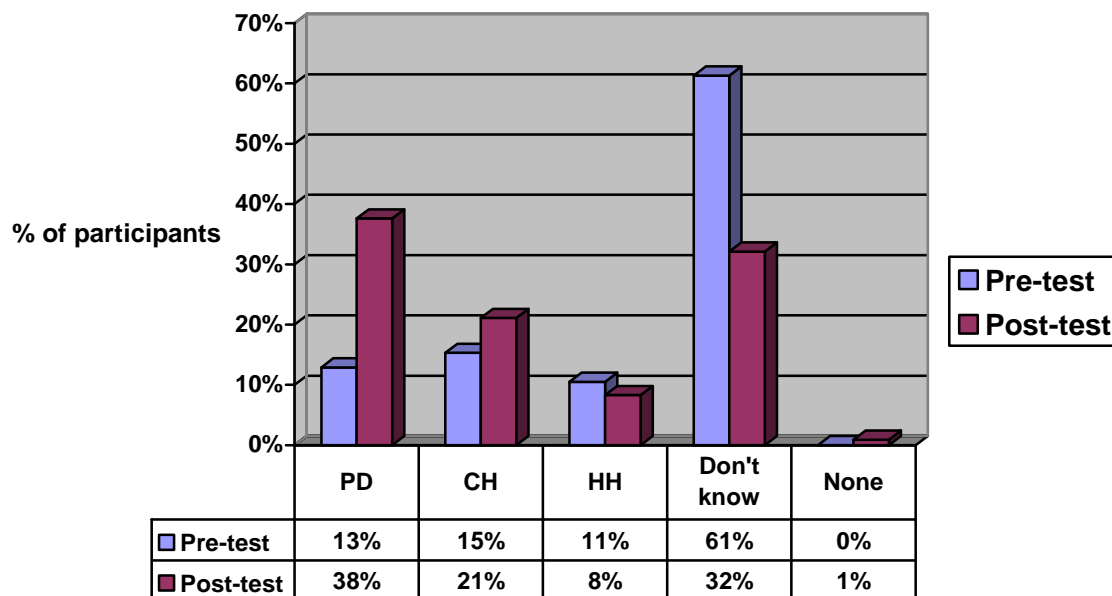
B3. What type of dialysis do you do?

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

Dialysis type	Frequency	Percent
CH	14	93.3%
PD	1	6.7%
HH	0	0.0%
<b>Total</b>	<b>15</b>	<b>100.0%</b>

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 (12% vs. 38%,  $p < .001$ ) significantly increased, while center hemodialysis (15% vs. 21%,  $p > .05$ ) and home hemodialysis (10% vs. 8%,  $p > .05$ ) 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 (63% vs. 32%,  $p < .001$ ).

### ***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	54	49.5%
Post-test	65	59.6%

**p<.05**

**\*Only participants who answered this question at both pre-test and post-test were included in the analysis (n=109)**

**Using the McNemar test, we determined that there was a significant change in interest in transplant from pre-test to post-test (p=.036).**

The 15 participants, whose interest in transplant increased from pre- to post-test, were primarily male (73%) and Caucasian (75%), with greater than a high school education (87%), and a mean age of 63 years (SD=13.0). Three of the four participants that regressed from wanting to get a transplant at pre-test to uncertainty at post-test were African American.

#### C2. Logistic Regression for Pre-Class Kidney Transplant Interest

*Did willingness to receive a transplant at pre-class 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, only 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 (78% vs. 31%, p<.001) were more interested in having a transplant compared to other patients.**

## IV. Knowledge about Kidney Disease

### A. Education about Kidney Disease

<i>Have you spent time:</i>	<b>%Yes</b>
Talking with your doctor about kidney disease and treatment	91.7
Talking with family and friends about kidney disease and treatment	72.7
Reading written materials about kidney disease and treatment	70.2
Talking with a patient who was on dialysis or received a transplant	48.8
Browsing Internet websites about kidney disease and treatment	43.8
Watching videos about kidney disease and treatment	41.3
Talking with a patient educator about kidney disease and treatment	39.7
Attending support groups for people with kidney disease	16.5

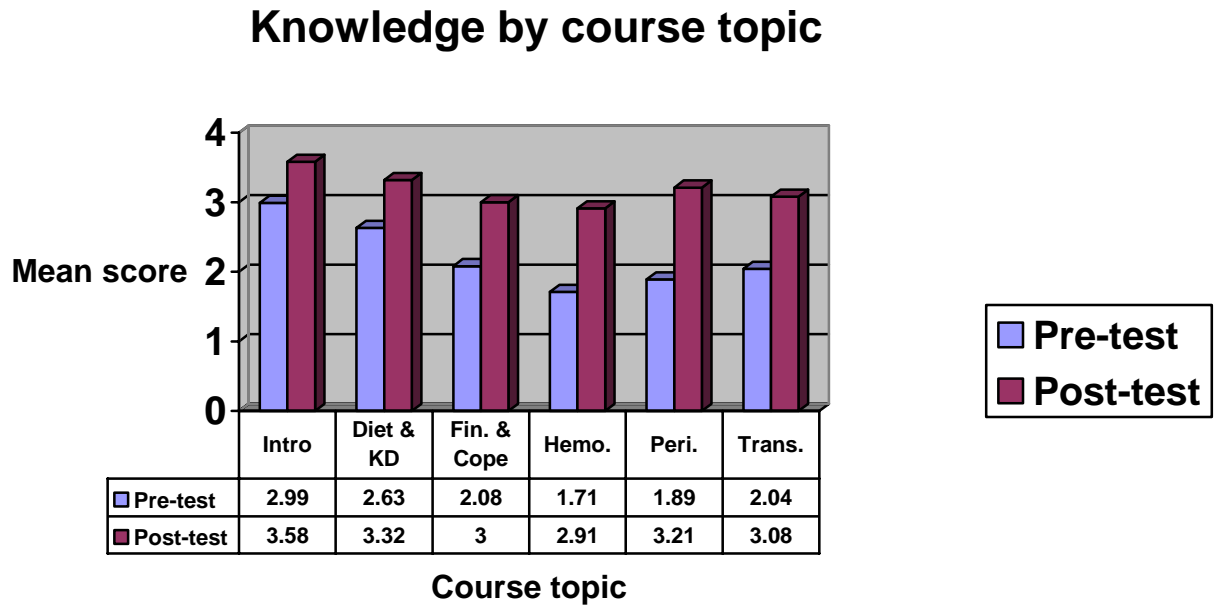
\*Participants could have used more than one type of education

### 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)	73.8	91.4	+17.6
Poor appetite and headache can be symptoms of uremia. (T)	75.7	95.2	+19.5
Nothing can slow down how fast kidneys fail. (F)	74.5	81.0	+ 6.5
People with kidney failure can choose not to treat it. (T)	75.7	90.5	+14.8
<b>Diet and Kidney Disease</b>			
Transplant patients can eat anything they want. (F)	72.4	78.4	+ 6.0
People on peritoneal dialysis must eat more protein than those on hemodialysis. (T)	34.0	66.4	+32.4
Fluid gains don't matter because dialysis takes it off. (F)	82.1	98.2	+16.1
Over-the-counter medicines and herbs are safe to use. (F)	76.2	92.7	+16.5
<b>Financing and Coping with Kidney Disease</b>			
Medicare covers a live donor's surgery. (T)	36.9	83.8	<b>+46.9</b>
People on dialysis can't work full-time. (F)	70.9	84.0	+13.1
Symptoms of uremia can look like depression. (T)	60.2	89.6	+29.4
Medicare covers transplant drugs forever. (F)	41.7	45.7	+ 4.0
<b>Hemodialysis</b>			
A catheter is the best kind of hemodialysis access. (F)	44.1	71.0	+26.9
Good dialysis does 15% of what healthy kidneys do. (T)	46.1	89.7	<b>+43.6</b>
You must do center hemodialysis the same days, times. (T)	53.9	81.3	+27.4
You must do home hemodialysis the same days, times. (F)	26.5	50.5	+24.0
<b>Peritoneal</b>			
Peritoneal dialysis requires a helper. (F)	42.7	78.0	+35.3
People who are blind cannot do peritoneal dialysis. (F)	51.5	78.9	+27.4
Hernias can be a problem on peritoneal dialysis. (T)	48.5	82.6	+34.1
It's harder to travel on peritoneal than hemodialysis. (F)	47.1	82.6	+35.5
<b>Kidney Transplant</b>			
Patients over 70 may get transplants. (T)	41.0	84.5	<b>+43.5</b>
Getting a kidney transplant cures kidney disease. (F)	40.4	75.3	+34.9
Anti-rejection medicines can damage the kidney. (T)	37.4	63.9	+26.5
Kidneys from those who have died work longer than from living donors. (F)	61.7	84.5	+22.8
<b>TOTAL PERCENT OF QUESTIONS CORRECT</b>	<b>54.8%</b>	<b>80.0%</b>	<b>+ 25.2%</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



COURSE TOPIC	Pre-Test Mean # Correct (SD)	Post-Test Mean # Correct (SD)	Significance
Introduction to Kidney Disease	2.99 (1.1)	3.58 (0.7)	t = -5.73, p < .001
Diet and Kidney Disease	2.63 (1.1)	3.32 (0.8)	t = -5.77, p < .001
Financing and Coping with Kidney Disease	2.08 (1.2)	3.00 (1.0)	t = -6.52, p < .001
Hemodialysis	1.71 (1.1)	2.91 (0.9)	t = -9.48, p < .001
Peritoneal Dialysis	1.89 (1.4)	3.21 (1.1)	t = -8.99, p < .001
Kidney Transplant	2.04 (1.3)	3.08 (1.1)	t = -6.76, 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	13.50 (5.2)	0-23
Post-Test	17.48 (4.9)	3-24

**\* 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 = -6.41, 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	54 (50.0%)	51 (47.7%)	41 (41.0%)	51 (53.7%)	48 (51.6%)	41 (49.4%)	58 (65.9%)
Good	50 (46.3%)	49 (45.8%)	50 (50.0%)	43 (45.3%)	43 (46.2%)	38 (45.8%)	29 (33.0%)
Fair	4 (3.7%)	7 (6.5%)	7 (7.0%)	1 (1.1%)	2 (2.2%)	4 (5.0%)	1 (1.1%)
Poor	0 (0.0%)	0 (0.0%)	2 (2.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

### B. Moderator/Speaker Quality

	Moderator	Professional speakers	Patient speakers
Excellent	63 (59.4%)	63 (60.0%)	67 (67.7%)
Good	40 (37.7%)	42 (40.0%)	32 (32.3%)
Fair	3 (2.8%)	0 (0.0%)	0 (0.0%)
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	29 (27.1%)	35 (32.7%)	37 (34.9%)	49 (46.2%)	45 (44.1%)
Good	68 (63.6%)	66 (61.7%)	66 (62.3%)	51 (48.1%)	45 (44.1%)
Fair	10 (9.3%)	6 (5.6%)	3 (2.8%)	6 (5.7%)	12 (11.8%)
Poor	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

### 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	52 (48.6%)	48 (45.3%)	62 (59.0%)
Good	52 (48.6%)	56 (52.8%)	42 (40.0%)
Fair	3 (2.8%)	2 (1.9%)	1 (1.0%)
Poor	0 (0.0%)	0 (0.0%)	0 (0.0%)

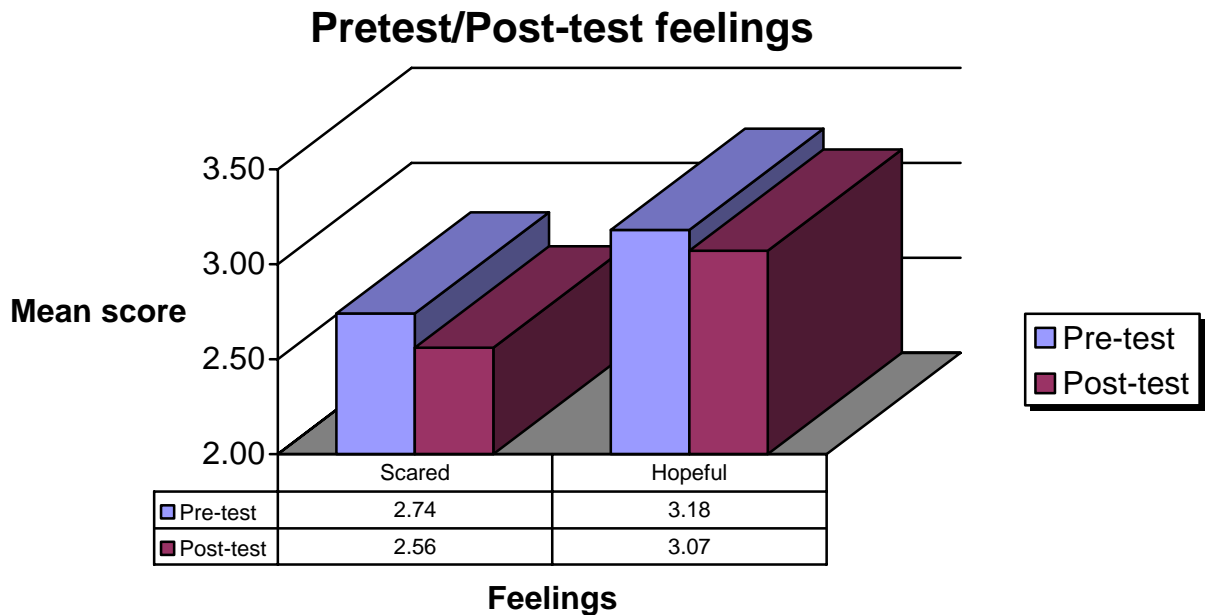
### ***E. Referral***

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

	Frequency	Percent
Yes	107	100.0%
No	0	0.0 %
<b>Total</b>	<b>107</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 being scared ( $t=2.551$ ,  $p=.012$ ) decreased. Participants also reported being less hopeful post-class but this was not significant.

## ***G. Change in Post-Class Emotions***

*Did post-class feelings of fear/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, we subtracted the post-class ratings of fear and hope from each person's pre-class rating to obtain a measure of emotional change during the PEP class. We 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. **Hispanic participants were more likely to report a reduction in fear from pre-test to post-test compared to other races ( $F=3.52$ ,  $p=.02$ ).**

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

**Participants who were less than 60 years old were more scared about kidney disease at post-test than participants who were older than 60 years ( $t=2.26$ ,  $p=.026$ ).**

	Age	N	Mean	Std. Deviation	Std. Error
Using a scale of 1-4, how much do you feel scared (post)?	< 60 Years	43	2.81	.880	.134
	≥ 60 Years	52	2.37	1.030	.143

**Participants who were female were more scared about kidney disease at post-test than men ( $t=-4.126$ ,  $p<.001$ ).**

	Gender	N	Mean	Std. Deviation	Std. Error
Using a scale of 1-4, how much do you feel scared (post)?	Male	57	2.23	.756	.100
	Female	45	2.98	1.076	.160

**Participants who classified themselves as other race were more scared about kidney disease at post-test than Whites or Hispanics ( $F=5.5$ ,  $p<.01$ ).**

	Race	N	Mean	Std. Deviation	Std. Error
Using a scale of 1-4, how much do you feel scared (post)?	White	66	2.41	.859	.106
	Black	24	2.96	1.083	.221
	Hispanic	3	1.67	1.155	.667
	Other	3	4.00	.000	.000

## VI. Demographics by Group Location

### A. Age by Location

Age	St. Louis	Kansas City
< 20	1 (2.1%)	0 (0.0%)
20-24	0 (0.0%)	0 (0.0%)
25-29	1 (2.1%)	1 (1.4%)
30-34	4 (8.5%)	0 (0.0%)
35-39	3 (6.4%)	2 (2.9%)
40-44	4 (8.5%)	4 (5.8%)
45-49	2 (4.3%)	2 (2.9%)
50-54	1 (2.1%)	9 (13.0%)
55-59	8 (17.0%)	9 (13.0%)
60-64	7 (14.9%)	7 (10.1%)
65-69	2 (4.3%)	11 (15.9%)
70-74	6 (12.8%)	11 (15.9%)
75-79	4 (8.5%)	7 (10.1%)
80 +	4 (8.5%)	6 (8.7%)

\*No significant differences by city

### B. Sex by Location

Sex	St. Louis	Kansas City
Male	28 (53.8%)	41 (56.2%)
Female	24 (46.2%)	32 (43.8%)

\*No significant differences by city

### C. Race by Location

Race	St. Louis	Kansas City
Black	21 (44.7%)	11 (15.5%)
White	26 (55.3%)	54 (76.1%)
Hispanic	0 (0.0%)	3 (4.2%)
Other	0 (0.0%)	3 (4.2%)

\*p=.002

### D. Education by Location

Education	St. Louis	Kansas City
Eighth grade or less	1 (1.9%)	1 (1.4%)
Some high school	5 (9.6%)	5 (6.8%)
Grad high school or GED	12 (23.1%)	29 (39.7%)
Some college	18 (34.6%)	19 (26.0%)
Completed college	12 (23.1%)	14 (19.2%)
Graduate school	4 (7.7%)	5 (6.8%)

\*No significant differences by city

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

<b>Living arrangement</b>	<b>St. Louis</b>	<b>Kansas City</b>
With Someone	37 (72.5%)	60 (84.5%)
Alone	14 (27.5%)	11 (15.5%)

\*No significant differences by city

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

<b>Employment Status</b>	<b>St. Louis</b>	<b>Kansas City</b>
Employed	17 (32.7%)	20 (27.8%)
Not employed	35 (67.3%)	52 (72.2%)

\*No significant differences by city

## VII. Treatment Information by Group Location:

### A. Access Type by Location

Access Type	St. Louis	Kansas City
No Access	44 (84.6%)	57 (78.1%)
Arm	3 (42.9%)	6 (37.5%)
Chest/Neck	2 (28.6%)	5 (31.2%)
Arm/Chest/Neck	2 (28.6%)	3 (18.8%)
Stomach	0 (0.0%)	2 (12.5%)

\*No significant differences by city.

### B. Dialysis Type by Location

Dialysis Type	St. Louis	Kansas City
None	47 (90.4%)	63 (86.3%)
Center Hemodialysis	5 (100.0%)	9 (90.0%)
Peritoneal Dialysis	0 (0.0%)	1 (10.0%)
Home Hemodialysis	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	29 (64.4%)	36 (56.2%)
No/Don't Know	16 (35.6%)	28 (43.8%)

\*No significant differences by city.

### D. Dialysis Choice by Location

Dialysis Type	St. Louis	Kansas City
Center Hemodialysis	11 (24.4%)	12 (18.8%)
Peritoneal Dialysis	17 (37.8%)	24 (37.5%)
Home Hemodialysis	5 (11.1%)	4 (6.2%)
No Treatment	0 (0.0%)	1 (1.6%)
Don't know	12 (26.7%)	23 (35.9%)

\*No significant differences by city.

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

	St. Louis	Kansas City
Pre-test mean score*	11.2	15.1
Post-test mean score	17.1	17.6

\* $t = -4.268$ ,  $p < .001$ .

No significant differences at post-test by city.

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

	<b>St. Louis</b>	<b>Kansas City</b>
Pre-test scared	2.9	2.7
Post-test scared	2.6	2.5
Pre-test hopeful*	3.4	3.0
Post-test hopeful	3.0	3.2

\* $t=2.54$ ,  $p=.012$

No other 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? (*Patients attended classes in which these topics were discussed*)

- Diet (3); low protein diet (1); low sodium diet (1)
- Medicare/Medicaid coverage and payments (3)
- Contact list for more information (2)
- More specifics on kidney failure.
- More about donor pool.
- How to stay off dialysis?
- More about immunosuppressants.
- What to expect in the future?
- How to take better care of myself.
- A letter to send out to potential donors.

### ***B. Other Comments***

- Very good/excellent presentations and speakers. (9)
- Thank you for the classes. (8)
- Very informative. (6)
- I really enjoyed the class/Greatly appreciated the classes. (5)
- Great program/excellent classes. (4)
- Softer chairs (KC) (2)
- Everyone with kidney disease should have this class.
- I would like Kansas to sponsor a program like Missouri Kidney Program.
- Would have been extremely helpful to receive [PowerPoint] handouts in order to keep up with each slide.
- It would have been nice to have done all this in 1 day.