



Enhancing Communication and CKD Health Outcomes (ECCHO)

Jasmine Tzeggai¹, Keyira Jones², Tipu Puri, MD, PhD², Milda Saunders, MD, MPH²

1. University of Chicago Pritzker School of Medicine, Chicago, IL, USA

2. University of Chicago Medicine, Chicago, IL, USA



Background

- Chronic kidney disease (CKD) affects 1 in 7 Americans
- Prevention of CKD progression is possible with aggressive self-management
- Previous studies have demonstrated gaps in awareness among CKD patients
 - Only 32% of CKD patients hospitalized at UCM were aware of their diagnosis of kidney disease
 - Over 43% of African Americans are unaware of their kidney disease until 1 week before ESRD diagnosis
- Barriers to effective patient-physician communication impede patient understanding
 - 90 million Americans with limited health literacy
 - Physician use of medical jargon, implicit biases and negative explicit attitudes toward racial/ethnic minority patients

Methods

- Adult patients were enrolled at the University of Chicago Nephrology Clinic
 - Patients enrolled in the first 4 weeks formed the control group; those in the second 4 weeks formed the intervention group
- Intervention group was provided the CKD Report Card, modified from the National Kidney Disease Education Program materials
- Patient knowledge was assessed using a 30-item CKD Knowledge Tool, modified from the Kidney Disease Knowledge Survey (KiKS)
- Data was analyzed using multivariable regression, adjusting for patient and physician characteristics

CKD Knowledge Survey Results

Question Topic	Control Group			Intervention Group		
	Pre-visit % Correct	Post-visit % Correct	Difference	Pre-visit % Correct	Post-visit % Correct	Difference
Functions of the kidney: The kidney...						
<i>filters and cleans the blood</i>	88	84	- 4	92	92	0
<i>helps keep bones healthy</i>	16	28	+ 12	40	60	+ 20
<i>helps keep red blood cell counts normal</i>	48	48	0	52	80	+ 28
<i>helps keep phosphorous levels in the blood normal</i>	28	40	+ 12	36	48	+ 12
Causes of CKD: What can cause CKD?						
<i>High blood pressure</i>	84	88	+ 4	88	100	+ 12
<i>Diabetes</i>	92	92	0	92	100	+ 8
General CKD knowledge						
<i>GFR = glomerular filtration rate</i>	64	56	- 8	72	88	+ 16
<i>There are 5 stages of CKD</i>	32	44	+ 12	28	60	+ 32
<i>My CKD stage is ___</i>	12	36	+ 24	24	40	+ 16
<i>CKD patients should avoid ibuprofen</i>	56	56	0	64	72	+ 8
Mean Score	60	64	+ 4	63	73	+ 10

Conclusion

- The CKD Report Card improves knowledge and may empower patients to become more actively engaged in their CKD self-management
- Future work will involve analysis of audio-recordings of clinic visits to evaluate how the CKD Report Card impacts patient-physician communication

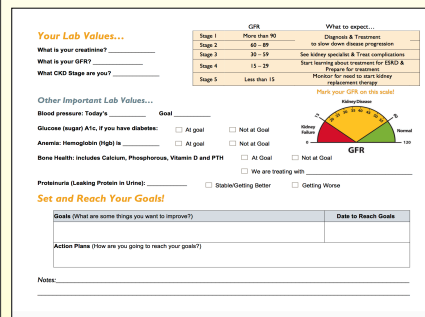
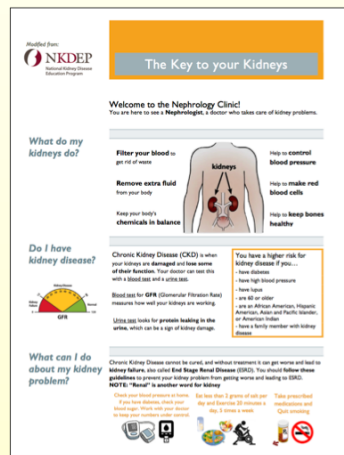
Limitations

- Generalizability: this study was conducted at a single institution, UCM
- Small sample size: N=50
- Variation in patient use of the CKD Report Card

Specific Aims

- To create an educational intervention that is
 - Patient-driven
 - Administered to a predominantly African American population
 - Designed to facilitate discussion of lab values, CKD stage, and patient-led goal setting
- To characterize the effectiveness of patient-physician interaction during a nephrology clinic visit both with and without use of the CKD Report
- Hypothesis: Implementation of our CKD Report Card will lead to a larger incremental gain in knowledge after a nephrology clinic visit as compared to knowledge gained after a clinic visit with no intervention.

CKD Report Card



Modified from the National Kidney Disease Education Program patient education tools.

Results

- Each study group contained 25 patients. The groups did not vary significantly
- Mean age was 62±15 years, 76% were Black, 58% were female, and 88% had CKD stages 3–5
- The intervention group had greater post-visit gain in knowledge for topics of kidney function, causes of CKD, and general CKD knowledge
- Adjusting for pre-visit score as well as patient demographic factors, the intervention group had a 7.1% higher (p=0.04) CKD Knowledge score

References

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Acknowledgements

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