

Increasing Kidney Transplant Among Blacks on the Transplant Waiting List

Trial registration: [ClinicalTrials.gov Identifier: NCT02319447](https://clinicaltrials.gov/ct2/show/study/NCT02319447)

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Background

Compared to chronic dialysis, living donor kidney transplant (LDKT) and deceased donor kidney transplant (DDKT) both offer decreased mortality, increased quality of life, and lower per person per year costs¹⁻⁴. LDKT, however, offers several potential advantages over DDKT. LDKT is associated with better patient and allograft outcomes⁵, allows the transplant candidate to bypass the long waiting list for a DDKT, and minimizes (or eliminates) time spent on chronic dialysis. Therefore, for most end-stage renal disease (ESRD) patients, LDKT is the best treatment option for their kidney failure.

Unfortunately, Blacks are much less likely than non-Blacks to receive LDKTs⁶⁻⁹. At the start of 2018, Blacks comprised 32.6% of the DDKT waiting list¹⁰. During 2018, based on OPTN data, Blacks received 32.4% of DDKTs but just 12.2% of LDKTs. Furthermore, for each year since 2000, the percentage of Black LDKT recipients has remained less than 15%. Unfortunately, every transplant center in the U.S. (out of 275) performs proportionally fewer LDKTs among Blacks than non-Blacks⁸.

Past interventions have sought to help kidney transplant candidates, especially those who are Black, to identify living donors. Health educators and other staff have intervened using videos, written materials, and in-person discussions to target patients who are not yet on dialysis^{11,12}, patients on dialysis¹³⁻¹⁵, patients at their initial transplant evaluation^{16,17}, and patients on the DDKT waiting list¹⁸. Some interventions have targeted chronic kidney disease (CKD) patients early in the transplant process, before they appear for transplant evaluation^{13,19}. However, these “proximal” interventions may have difficulty in resulting in significant increases in LDKTs, especially given the short follow-up periods in most prospective studies^{13,14,19}. Other interventions have targeted CKD patients at transplant centers that usually perform few LDKTs in Blacks, often making these studies underpowered to demonstrate an increase in LDKT among Blacks^{16,18,20,21}. The only intervention that has been shown to increase LDKT or proxies

for LDKT is home visits, but home visits have not been widely adopted due to their cost and difficulties in implementing them¹⁸. Overall, almost all interventions designed to increase LDKT have been ineffective²².

Patients with CKD have reported several barriers that may decrease the likelihood of receiving a LDKT²³⁻²⁷. These barriers include: lack of knowledge about LDKT^{23,26,28,29}, concerns about the donor's future health^{23-26,29-34}, guilt and concerns about inconveniencing the living donor^{23,25,26}, difficulty in asking living donors and not knowing how to ask^{23,25,26,30,35,36}, lack of medical trust³⁷⁻⁴³, and lack of interaction with recipients of successful LDKTs⁴⁴⁻⁴⁶. Social, behavioral, and educational interventions to increase LDKT, especially among Blacks, would ideally address some or all of these barriers.

Here, we describe the protocol of a randomized controlled trial that is testing the effectiveness of a multi-component educational program called "Destination Transplant". Destination Transplant was designed to address some of these barriers to LDKT and increase receipt of LDKTs among Blacks or African-Americans. Our aims are to: 1) examine whether the educational intervention leads to an increase in Blacks' readiness to pursue LDKT, and 2) examine the impact of the intervention on receipt of LDKTs among Black patients.

Methods/Design

Study Overview

We designed a randomized clinical trial that will test the effectiveness of an educational intervention, Destination Transplant, at increasing, among Black transplant candidates, both readiness to pursue LDKT and actual receipt of LDKT. The investigators will randomly assign kidney transplant candidates on the kidney transplant waiting list to either: (1) a control group that will receive Usual Care, or (2) an Intervention group that will receive a group-based intervention, as well as monthly mailings and a follow-up phone call by a transplant educator.

Prior to initiation of intervention activities, Destination Transplant was registered on clinicaltrials.gov (Protocol # NCT02319447). This study was approved by the human subjects Institutional Review Boards at Saint Barnabas Medical Center (SBMC) (12-69) and Rutgers University (Pro20150001749).

Study population, inclusion/exclusion criteria, and randomization

Study population

The target population for this trial will be all kidney transplant candidates who are Black and placed on the active waiting list for a DDKT at SBMC. Whenever possible, at the initial transplant evaluation at SBMC or one of our satellite locations, we will “pre-consent” and explain the trial to potential transplant candidates who are Black and being evaluated for transplant. We will include potential transplant candidates who: ●identify themselves as Black; ●are ≥ 21 years of age; and ●give informed consent. We will exclude potential transplant candidates who ●have limited English proficiency or ●are unable (e.g. cognitive impairment) or unwilling to give informed consent. An overview of the study design can be found in Figure 1 below.

For the actual clinical trial, our inclusion and exclusion criteria are identical to the criteria for the Pre-consented group, with some additions. In the actual trial, we will include kidney transplant candidates who ●are placed on the DDKT waiting list; ●identify themselves as Black; ●are ≥ 21 years of age; and ●complete the baseline questionnaire; and exclude kidney transplant candidates who ●have limited English proficiency; ●are unable (e.g. cognitive impairment) or unwilling to give informed consent; ●lack a working telephone; ●live >150 miles from the transplant center; or ●were enrolled in our prior trial of an educational intervention at the time of the initial transplant evaluation¹⁷.

Randomization

Patients who are eligible and consented to the study will be randomly assigned, after completing the baseline measurement, to either Usual Care or the Intervention, in a 1:1 allocation ratio. Randomization will occur in blocks of 8, using random numbers. Randomization will be stratified by whether the study participant is newly placed on the waiting list (defined as placement on the waiting list <6 months prior to enrollment) or has already been on the waiting list (defined as placement on the waiting list ≥6 months prior to enrollment). Random number sequences will be generated by the off-site study biostatistician (P.O-S.). To promote allocation concealment, the biostatistician will allocate study participants to their study arm at the time of randomization and inform the study coordinator of the assigned study arm. The study coordinator will contact potentially eligible transplant candidates by telephone to inform them of their assignment. Study participants and the study coordinator will be aware of allocation to Usual Care or the Intervention group, but outcomes assessors will be blinded to the allocation group.

Study aims & objectives

The primary aim will compare LDKT readiness and LDKT receipt in the Intervention vs. Usual Care groups of our randomized clinical trial. Our primary outcome is change in readiness to pursue LDKT, and our main secondary outcome is actual receipt of LDKT after 18 months of follow-up. Other secondary aims will determine (a) the social and behavioral variables that modify the effect of the Intervention upon LDKT readiness and receipt; and (b) whether the intervention affects other precursors of LDKT readiness and receipt, such as knowledge about LDKT, self-efficacy, and other social and behavioral factors.

Data collection, follow-up and outcomes

Baseline Measurements

After active placement on the waiting list, we will obtain “baseline” measurements of multiple social and behavioral attributes, via telephone questionnaires of all patients enrolled in the study (see Figure for flow of patients through the study). If we are unable to administer the baseline questionnaires within 2 months of enrollment into the trial (e.g. within 2 months of placement on the waiting list for newly listed patients, or within 2 months of consent for the patients already on the DDKT waiting list), then we will not randomize the patient. This requirement is intended to minimize later study dropout. Study participants will be mailed a \$25 gift card for this baseline measurement.

Follow-up Measurements: Timing

Each Usual Care study participant will be matched to one Intervention participant. For patients randomized to the Intervention, we will administer a follow-up questionnaire by telephone, approximately 1 week after the Intervention. At the same time, we will contact the matched Usual Care patient to administer the follow-up questionnaire. This procedure will ensure that the post-Intervention follow-up questionnaires are administered at approximately the same time, post-listing, for both Usual Care and Intervention patients, and using the same modality (telephone). A final administration of the study questionnaires will occur at 9 months after randomization for patients in both arms. We will provide \$25 gift cards for each of these two follow-up measurements.

Standard of Care Components (Usual Care/Control Group)

Participants who are randomized to receive the Usual Care engage in the standard education and evaluation process given to all patients at SBMC. While on the waiting list, transplant candidates are asked to inform the transplant center of important changes in their medical condition (e.g. hospitalizations) but otherwise typically have infrequent contact with the transplant center. Candidates return to the transplant center for periodic reevaluations by

transplant staff, usually every 1-2 years, depending upon the transplant candidate's medical comorbidities. At these reevaluations, transplant personnel usually discuss LDKT. These Usual Care patients will receive usual concomitant care but no additional formal education.

Intervention Components (“Destination Transplant”)

Destination Transplant was developed by a transplant nephrologist, a social psychologist, a health communication researcher, and a graphic designer. Based upon the Transtheoretical Model (TTM) of Change⁴⁷, Destination Transplant is designed to increase both readiness to pursue LDKT and actual receipt of LDKTs among Black transplant candidates.

Destination Transplant Education Seminar

The intervention will include a single, 60-90 minute educational and motivational seminar, delivered to small groups of Black kidney transplant candidates and their family and friends (see Table 1 for details). The Intervention seminar will feature a slide presentation that includes brief talks from a physician, patient educator and patient ambassadors (donors and recipients). We anticipate that each seminar will include 3-5 listed transplant candidates, as well as family and friends. These seminars will be held at one of our two sites—Saint Barnabas Medical Center (SBMC), our main site, or our satellite location at Newark Beth Israel Medical Center. At the end of each Intervention seminar, we will measure the patients' perceptions of the cultural competence of the researcher and speakers. Additionally, at various different time points throughout the study period, patients will be given educational materials that were developed specifically for the Destination Transplant program. These education materials were modified based on early versions of stage-based, transplant education materials developed by the co-investigator (A.D.W) for her Explore Transplant and Your Path to Transplant educational programs.

We developed a slide presentation as the main method of education delivery. This interactive presentation provides patients with the opportunity to learn general information about CKD, the waiting list, and different types of kidney transplant. Facts about kidney disease, the waiting list, and transplant will be presented in a question and answer format in the slide presentation. Patients will be asked to respond to true/false and multiple-choice questions and receive nearly immediate feedback from the research team and the physician. The presentation focuses upon five types of kidney transplants that the transplant candidates can consider:

- 1) DDKT from a “standard” donor
- 2) “Nonstandard” DDKT (from donors with either a high kidney donor profile index (KDPI) or considered Public Health Service (PHS) increased risk)
- 3) Multiple Listing at two or more transplant centers (DDKT at another transplant center in a different donation service area)
- 4) Direct LDKT
- 5) LDKT via Kidney Paired Donation (KPD)

The slide presentation education is designed to progress through the treatment options from least to more difficult, in terms of additional effort needed on the part of the patient. For instance, the first treatment option, DDKT from a standard donor, requires no additional action, given that each patient is already active on the DDKT waitlist. Each of the five transplant options will be discussed in detail, with concluding statements outlining the necessary steps for selecting each option.

Topics will include:

- *Basic facts about CKD, transplant, and the waiting list.* This portion of the presentation is designed to increase participant knowledge of CKD, LDKT, and living donation. Specific topics of this lecture include: •basic facts about CKD, •the kidneys, and dialysis; •benefits of transplant; •the DDKT waiting list and how it

- works; ●types of DDKTs, including high KDPI kidneys; ●and how to stay healthy and ready for a transplant.
- *The experience of receiving a transplant (by a Black recipient of a LDKT).* A recipient of a LDKT who is Black will speak about their own experiences. The exact content of the talk will vary according to the patient, but each talk will discuss the following: ●personal background; ●how the patient developed CKD; ●experience while on dialysis or with CKD; ●how they recruited a living donor; ●the transplant surgery and early post-transplant experience; ●current life with a transplant (advantages and disadvantages); ●how their living kidney donor is faring after donation; ●misconceptions about kidney transplant; and ●audience questions.
 - *The experience of serving as a living kidney donor (by a Black living kidney donor).* A living kidney donor who is Black will speak about their own experiences. The exact content will vary according to the donor, but each talk will discuss the following: ●personal background; ●how the donor became aware of the need for transplant by a loved one; ●why the speaker decided to become a live donor; ●testing and evaluations to become a donor; ●the actual donation operation; ●life after donation; and ●audience questions.
 - *Ways to more quickly receive a transplant.* In addition to encouraging LDKT, we will encourage study participants in the Intervention arm to consider the following ways to more quickly receive a DDKT: ●accept a high KDPI kidney, if deemed medically appropriate; ●accept a PHS increased risk kidney; ●get on the DDKT waiting list at other transplant centers outside New Jersey and the SBMC donation service area.

Destination Transplant Education Folder

As a supplement to the slide presentation, patients will be given a folder to take home that contains factsheets that provide an overview of the five types of kidney transplant. Although

the content varies between the factsheets, all factsheets provide patients with instructions or further directions on what to do if they are interested in pursuing a particular option.

Destination Transplant Postcards

During the 9-month intervention period, patients will be sent one educational postcard per month that serves to provide both basic information about kidney disease and additional information about the five treatment options. These colorful postcards feature real recipients and donors and tackle tough topics including asking someone to get tested as a donor. The 9 postcards address the following topics:

- *“Your Exploration of Kidney Transplant Continues at Home”*. Welcomes patients and provides a short list of recommendations for patients who are waiting for a transplant
- *“Consider All Types of Kidneys for Transplant”*. Encourages patients to consider nonstandard deceased donor transplant through use of High KDPI donor kidneys
- *“Consider All Types of Kidneys for Transplant”*. Encourages patients to consider nonstandard deceased donor transplant through use of Public Health Service Increased Risk donor kidneys
- *“Learn About Living Donation”*. Encourages patients to reach out to others for support and to consider living donor transplant as a treatment option
- *“Learn Why People Want to Be Living Donors”*. Presents reasons why living donors may offer to help out a friend or a loved one.
- *“Compare the Risks and Benefits of Living Donation”*. Provides information about the risks (including costs, future impact on health, and risk of death) associated with donating a kidney
- *“Consider Getting a Transplant from a Living Donor”*. Provides a list of strategies that may be used to help an individual identify a potential donor

- “*You Can Get a Transplant Even if Your Donor is Not a Match for You*”. Defines and explains how Kidney Paired Donation works
- “*Weigh the Pros and Cons of All Your Options*”. Provides a side by side comparison of the pros and cons of dialysis, deceased donor transplant and living donor transplant

3 Months post-baseline follow-up coaching call

Approximately 3 months after the baseline assessment, patients in the intervention condition will receive a follow-up phone call from a coach (transplant research associate) to discuss topics including but not limited to:

- (1) their transplant plan and decision-making
- (2) what supports they have and/or need to ensure they are able to follow through with their transplant plan
- (3) how to discuss LDKT with friends and loved ones

The purpose of the call is to provide additional education and support for patients. These conversations also provide additional opportunity for patients to discuss their feelings about and willingness to pursue the various transplant options. This call serves as a mini-assessment wherein the coach assesses patient readiness to pursue LDKT. At the conclusion of the coaching call, patients are given the option to receive additional educational materials designed to help bolster their confidence in potential discussions about their need for an LDKT.

Patients expressing interest in learning more will be given the option to receive the *Explore Living Donation Packet* and the *Finding a Living Donor Booklet*. Each resource provides patients with practical, skills-based information to help initiate conversations about living donation. Through these materials patients will engage with videos and print materials that provide detailed descriptions about how others have found living donors. Additionally, patients

are given several sample letters that others have used with family and friends to help them identify potential donors.

Evaluation and Statistical Plan

Measures

Patient information was obtained, mainly via questionnaires, at baseline, interim follow-up (as explained above in *Follow-up Measurements: Timing*), and 9 months (Table 2).

Descriptions of these measures are below. Unless otherwise indicated, all measures were assessed at baseline, follow-up, and 9 months.

Demographic, clinical, and cultural factors (baseline only)

During the baseline assessment, patients will be asked some basic demographic and cultural questions such as their age, biological sex, race, and ethnicity. Clinical information will be collected, including data such as patient dialysis status and comorbidities such as diabetes, hypertension, and polycystic kidney disease.

Transplant derailers (baseline only)

Transplant derailers can be described as individual factors that might be sources of delay, difficulty, or challenge to a patient pursuing transplant. These factors include education, job status, income, health insurance quality, neighborhood/environmental assessment, financial stability, access to transportation, and family obligations.

Transplant knowledge & health literacy

To assess health literacy, the two-item subjective health literacy and numeracy measure was used⁴⁸. Extent of previous transplant education and current transplant knowledge measures were adapted from previously developed measures.⁴⁹ The knowledge and education measures were designed to assess the amount and quality of transplant knowledge participants had.

Small steps to pursue LDKT

Small steps include a list of actions that people may take related to getting a living donor transplant (e.g., talk to people you trust about whether to get a living donor transplant or ask potential donors to be tested).

Measures of readiness for LDKT, based upon TTM

We use previously validated scales⁴⁹ to measure readiness to pursue LDKT and the pros and cons of living donation. The readiness measures assess how ready patients are to take actions to pursue LDKT, based upon the stages in the Trans-Theoretical Model of Change (e.g. “I am not considering taking actions in the next six months to pursue living donation” (Pre-contemplation)). We also measured readiness using the scales developed by Rodrigue et al.²¹, which also measure readiness for LDKT but use slightly different wording (e.g. “I am not thinking about or considering live donor kidney transplantation” (Pre-contemplation) and “I have thought about live donor kidney transplantation and I am seriously considering the possibility” (Preparation)). The pros and cons assessment asks participants to rate the importance of a series of statements about transplant to their decision to pursue LDKT(e.g., “I will feel guilty having someone donate to me” or “With a living donor transplant, I will be able to contribute to my family and friends sooner”).

LDKT Decisional Balance and Self-efficacy

Decisional Balance items will measure the perceived importance to patients of the possible positive and negative outcomes of LDKT. Patients will be asked “How important is this statement to your decision about living donor transplant?” and then be asked to respond to 12 positive and negative statements (e.g. “I will feel guilty having someone donate to me”, “I will be healthier because I spent less time on dialysis”). Responses will be measured on a 5-point Likert-type scale (1 = “Not important” to 5 = “Extremely important”). To assess LDKT self-efficacy, we will use 6 items adapted from prior studies exploring LDKT⁴⁹. Items will measure how confident participants are that they could continue their pursuit of LDKT even if they were faced with a various challenges (e.g. “You don’t know anyone who might be a living donor for you” or “You asked someone to donate and they turned you down”). Responses to these items will also be on a 5-point Likert scale, (1=“Not at all confident” to 5=“Completely confident”).

Family Support & Living Donor Availability-

These questions measure the participants’ support networks. Questions include the number of available donors, quality of the potential donors as determined by their health status, number of donor offers and willingness to consider paired donation. Additionally, a brief assessment of Unmet Social Support Needs^{50,51} will be used that compares the amount of transplant-related support participants have received in comparison to how much they’ve needed.

General Health Status

The Centers for Disease Control HRQOL-4⁵² will be used as a measure of general health status. This 4-item assessment asks participants to report on overall health status (i.e., physical, mental, and emotional health) in the last 30 days.

Medical Mistrust

Medical Mistrust will be measured using the 7-item The Medical Mistrust Index⁵³. This scale examines whether or not patients trust health organizations.

Cultural Competence Assessment

Participants will be asked to reflect on the cultural competence of the project staff based on in-person and telephone interactions. Items examine participant perceptions of whether staff presented clear information, treated them fairly, and were respectful and were adapted from supplemental cultural competence items that were part of the Consumer Assessment of Healthcare Providers and Systems.⁵⁴

Decisional Conflict Scale (follow-up and 9 months only)

This scale asks respondents to reflect on the information they received about their treatment options and reflect on the option they chose (e.g., I know the risks and side effects of each option and I have enough advice to make a choice).⁵⁵

18-Month Records Review

We will conduct a review of participants' medical records to assess transplant-related outcomes at 18 months post-randomization. These measures will include:

Receipt of LDKT

We will determine whether or not trial participants have received a LDKT in the United States during the 18 months after they were randomized. This determination will be made by examining our electronic medical records for each study participant. If the person received a LDKT within the U.S., then we will determine whether this LDKT occurred at SBMC or some other transplant center.

Recruitment of donor volunteers

Using electronic transplant medical records at SBMC, we will determine how many donor volunteers contacted the transplant center to donate to each study participant during the 18 month follow-up period. Persons are considered “donor volunteers” after they (1) contact the transplant program to request an information packet regarding live kidney donation, and (2) complete and return a Living Donor Referral Form (included in the packet) to SBMC.

Nursing education of donor volunteers

After returning the Donor Referral Form, donor volunteers must complete an in-person education session regarding live kidney donation. As the first step in the donor evaluation, appearance at the transplant center for this education is a sign of the “seriousness” of the donor volunteer’s intent to donate. For each study participant, we will determine how many (if any) of their donor volunteers appeared for an in-person nursing education session.

Status on the DDKT waiting list

We will determine the status of study participants still on the waiting list after the 18 month follow-up period. Specifically, we will determine whether they are: ●active (Status 1), or ●inactive (Status 7) on the waiting list. Other patients will have been removed from the SBMC waiting list because they: ●died; ●became too sick to transplant; ●refused transplant; ●transferred to another center; ●improved and no longer required transplant; ●received a DDKT; ●received a LDKT; or ●other. We will determine these reasons, along with the date they occurred, by querying the medical records for each patient.

Statistical analyses

Our initial analysis will be descriptive. Our main analysis will use standard intention-to-treat principles. First, we will describe participants’ baseline characteristics and compare

summary statistics of the Usual Care and Intervention groups. These summary statistics will include mean, standard deviation, median, and range for continuous variables, and counts and frequencies for categorical variables. Two-sample t-tests, Wilcoxon rank-sum tests (for non-parametric variables) and chi-squared tests will be used to test for differences between the Usual Care and Intervention groups, as appropriate.

For our primary outcome (increase in readiness to pursue LDKT), we will compare, using chi-square testing, the proportion of participants in the Usual Care vs. Intervention arms who have advanced at least one stage in their readiness to pursue LDKT (between the time of placement on waiting list and the time of reassessment at 18 months). For our main secondary outcome (receipt of LDKT), we will compare, using chi-square testing, the proportion of study participants in the Usual Care vs. Intervention arms who have received a LDKT. Sensitivity analyses will assess the intervention effect, adjusting for clustering of response by seminar group (because failing to account for clustering can reduce power)^{56,57}.

To determine which baseline factors (e.g. age), if any, modify the effect of the Intervention on the primary and secondary outcomes, logistic regression will model the log-odds of the outcome as a function of the intervention, while controlling for these factors of interest. Tests for modification by these key factors will be based on Wald tests of interaction terms between the intervention indicator and baseline factors. We will perform logistic regression⁵⁸ and model-building as we have in prior published analyses⁵⁹⁻⁶¹.

To test the effect of the intervention upon other precursors of LDKT readiness and receipt (e.g. knowledge about LDKT, self-efficacy, and other social and behavioral factors), we will use stratified chi-square tests for categorical variables and linear regression models for semi-continuous scales. The chi-square tests and linear regression models will be stratified by accumulated time on the waitlist at randomization (≤ 6 months vs. > 6 months). We will examine effects adjusted and unadjusted for baseline value for each respective scale.

Power and sample size calculations

The proportion of Usual Care (control) patients who have increased readiness for LDKT could plausibly range from 0.10 to 0.40, while the proportion who receives a LDKT is expected to equal 0.14 (based on prior baseline data from our center). Assuming there are 250 or 200 (assuming 100% and 80% retention rates) participants in each group, powers for increases of 0.10, 0.15, and 0.20 are presented in Table 3. In most scenarios, we have >80% power to detect a clinically significant increase in LDKT readiness and receipt of LDKT. We may be slightly underpowered only for very small increases in these two outcomes. Clustering by seminar in the Intervention arm may slightly reduce our power^{56,57,62}, but we should have sufficient power to detect an effect of the Intervention upon our LDKT readiness and receipt.

Abbreviations

CKD: Chronic kidney disease;

DDKT: Deceased donor kidney transplant;

ESRD: End-stage renal disease;

KDPI: Kidney donor profile index;

KPD: Kidney paired donation;

LDKT: Living donor kidney transplant;

OPTN: Organ Procurement and Transplantation Network;

PHS: Public Health Service;

SBMC: Saint Barnabas Medical Center;

TTM: Transtheoretical Model of Behavioral Change;

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Figures, tables, and additional files

Figure. Flow of study participants through the study

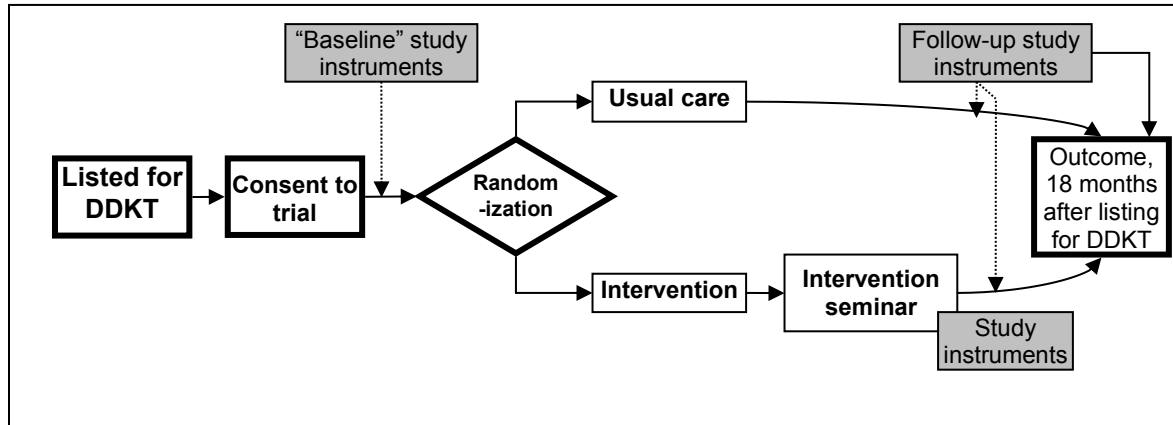


Table 1. Intervention seminar components

Topic	Speaker
Basic facts about CKD, transplant, and the waiting list	Transplant physician
Experience of receiving a transplant and LDKT	Black LDKT recipient
Experience of serving as a live kidney donor	Black live kidney donor
Wrap-up talk	Transplant physician

Table 2. Outcomes and measures

	Baseline (after listing)	1 wk after Intervention	9 months after baseline	18 months after baseline
OUTCOMES				
Primary: Readiness to pursue LDKT (Stage of Change)	X	X	X	
Main Secondary: Receipt of a LDKT				X
Number of donor volunteers recruited & evaluated				X
Status on DDKT waiting list				X
Knowledge of LDKT	X	X	X	
OTHER MEDIATORS AND CORRELATES				
Transplant derailers	X			
Previous transplant education	X			
Health literacy	X			
Small steps taken to pursue LDKT	X	X	X	
Self-efficacy regarding LDKT	X	X	X	
Family and social support				
Availability of potential living donors	X			
General health status	X		X	
Decisional conflict		X	X	
Medical mistrust	X		X	
Pros/cons	X	X	X	
Sociodemographics	X			
Medical and treatment characteristics (etiology of CKD, dialysis type if any, dialysis vintage, etc.)	X			

Table 3. Power calculations for Primary and Main Secondary outcomes

Proportion among Controls	Proportion among Intervention	Power	
		250 participants per arm	200 participants per arm
Increase in readiness of at least one stage			
0.10	0.20	0.85	0.76
0.10	0.30	>.99	>.99
0.25	0.40	0.94	0.88
0.25	0.45	>.99	0.99
0.40	0.55	0.91	0.83
0.40	0.60	0.99	0.98
Receipt of LDKT			
0.14	0.24	0.78	0.68
0.14	0.29	0.98	0.95
0.14	0.34	>.99	>.99

