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Attitudes and perceptions of patients on the kidney transplant waiting list toward mobile health–delivered physical activity programs

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Abstract

Context—Dialysis patients' lifestyles are associated with low levels of physical activity, increasing the chances of being removed from kidney waiting lists or dying while awaiting transplant because of increased cardiovascular risk factors and deteriorating health conditions. Personalized mobile health (mHealth) delivered programs may support their engagement in healthier lifestyles, maintain transplant eligibility, and reduce premature mortality.

Objective—To explore barriers and perceptions of physical activity behaviors and gauge interest in using mHealth in a physical activity wellness program for dialysis patients on the kidney transplant waiting list.

Participants and Design—In-depth key informant interviews were conducted with 22 randomly selected dialysis patients during dialysis treatment in an urban Southeastern coastal city. A theory-guided community-based participatory research approach was used to develop the interview content. Constructivist grounded theory guided the data analysis using NVIVO 10 (QSR Int). The 32-item checklist from the Consolidated Criteria for Reporting Qualitative Studies was used in the qualitative reporting.

Results—Dialysis patients had a mean age of 46 (SD, 10.7) years, 45% were female, and 82% were African American. Their mean duration on transplant waiting lists was 6.7 (SD 4.3) years, and 73% owned smartphones. After saturation was reached, predominant themes included (1) physical activity was perceived as optional, (2) social support both encouraged and limited physical activity, (3) chronic stress and coping influenced physical activity, (4) spirituality provided strength to engage in physical activity, (5) self-care management practices varied considerably, and (6) high interest (95%) for using mHealth to promote physical activity was

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found. Patients preferred their home and neighborhood environments to intradialytic settings for engaging in physical activity.

In 2009, 398 861 people in the United States were on dialysis and had an estimated 5-year survival rate of 35.8%.¹ The best treatment alternative for dialysis patients is kidney transplant, although a large disparity exists between the number of people on dialysis and those who qualify for transplant. As of May 29, 2013, 96314 people were on the kidney transplant waiting list in the United States, representing 81.5% of all people waiting for an organ transplant. During this period, South Carolina had 860 people on the kidney transplant waiting list.² Recent evaluation of patient records in South Carolina show that between 18% and 44% of attrition from kidney waiting lists could be averted with a healthy lifestyles program.

Two of the leading lifestyle behaviors that affect the health of dialysis patients awaiting transplant are poor diet and sedentary behavior, which increase the incidence of obesity and cardiovascular events.^{3–6} These patients must be vigilant to maintain their weight within a healthy range and minimize associated physiological risk factors (eg, levels of glucose, cholesterol, blood potassium, and phosphorus and blood pressure) and barriers (eg, fatigue, dietary restrictions),⁷ as well as a multitude of other factors to remain eligible for transplant (eg, attend medical appointments, medication adherence). Unfortunately, increasing numbers of patients are being removed from eligibility status (16.1% in 2003, 31% in 2007).⁸

Typical approaches to improve physical activity among patients on the transplant list who have end-stage renal disease have involved intradialysis center exercise programs.^{9–14} These programs have resulted in a wide range of improvements, including enhanced quality of life, increased function and improved strength, as well as improved dialysis efficiency markers (eg, dialysate urea removal).^{6,9,12,14} However, most dialysis centers do not have exercise equipment, and center programs typically do not institute behavioral change programs outside the dialysis clinics. A recent physical activity meta-analytic review suggested that using mixed aerobic and resistance training techniques (walking and resistance training, eg, using bodyweight, bands, or free weights at home or at a center) may be the best method to increase wellness in the dialysis community, although evidence on using this training modality is lacking and should be pursued.¹⁵

US cell phone usage is ubiquitous, with about 90% of adults owning a cell phone and about 58% having smartphones.¹⁶ As a result, mobile health (mHealth) technology programs are now becoming a relevant method to introduce programs to change health behaviors among diverse populations.¹⁷ mHealth increases reach, extends connectivity between patient and provider, and enables real-time feedback designed to increase self-management of chronic disease medical regimens including healthy lifestyle behaviors.¹⁷ In our previous research involving kidney transplant patients, we observed positive attitudes toward mHealth technology that guided the development of a smartphone medical and biofunction self-management program.¹⁸ A subsequent 3-month trial among uncontrolled hypertensive transplant recipients indicated high acceptability, adherence, and sustained control of blood pressure.¹⁹ Whether dialysis patients would be interested in using mobile technology to

engage in lifestyle programs is currently unknown. Designing programs that foster acceptability and sustainability is another important aspect. One approach to address this need is through community-based participatory research (CBPR). Through this approach, an academic-community partnership is formed to work closely with the communities of interest to better understand their needs while fostering trust and partnerships.²⁰

The purpose of this study is to report the formative results using grounded theory methods that will aid in the development of future PA programs for dialysis patients on the transplant waiting list. Our specific aims were to (1) assess the familiarity, perceptions, barriers, and attitudes on physical activity; (2) assess the interest in and acceptance of using mobile technology to assist in increasing aerobic and strength activities; and (3) develop a conceptual framework around the first 2 aims to describe emerging themes in dialysis patients who are wait-listed for transplant. These themes in turn can be used as the foundation for development of mHealth-enabled patient and provider-centered physical activity programs.

Methods

The institutional review board at the Medical University of South Carolina approved all protocols in this study. The Consolidated Criteria for Reporting Qualitative Studies (COREQ) 32-Item Checklist was integrated in the reporting of the methods and findings.²¹ A CBPR approach was used to develop a strong, united working relationship with patients who have end-stage renal disease and health care providers in dialysis centers. The initial partnership was formed between a clinical researcher from the Medical University of South Carolina (J.S.) and the chief executive officer of Donate Life SC (T.A.). The partnership emphasized mutual respect, equal power, and assessment of team skills through 15 formal training workshops, CBPR mentorship, and 6 months of weekly meetings.²² A community advisory board whose membership included CBPR mentors and researchers, behavioral researchers, qualitative experts, nephrologists, transplant surgeons, dialysis patients, dietitians, dialysis center social workers, and administration staff met with the partnership at various stages during the development and reporting phases of the study to provide ideas, suggestions, feedback, and direction.

Based on published reports and opinions of members of the advisory board, identified barriers and current behavioral strategies to promote healthy lifestyle behaviors by using mobile technologies (eg, physical activity and dietary changes) among patients with end-stage renal disease were used to organize a list of starting themes for interview development.^{7,23} Literature reviews identified theoretical components from the Social Cognitive Theory, such as self-regulation (eg, goal-setting, self-monitoring), self-efficacy, and social support.²⁴ Self-Determination Theory (eg, internal vs external regulation of healthy behaviors aimed at sustaining motivation) was also used as an important framework in the design of the questions.¹⁰ These theories helped assess patients' actions, attitudes, and perceptions to maintain their health while waiting for a kidney, as well as investigating their receptivity to a personalized, culturally tailored mHealth physical activity program designed to foster self-efficacy and sustain motivation. Last, we used the Technology Acceptance Model as a framework in our key informant interview (KII) questions focusing on eliciting

responses about physical activity monitors and use and acceptance of mobile applications.²⁵ For the purpose of the interview, physical activity included both aerobic and strength training. Main topic areas included prior use of physical activity monitors in combination with fitness mobile applications, tracking physiological measures on smartphones, describing daily schedules, motivation to stay healthy, fatigue levels, work and hobbies, current physical activity, perceived physical limitations, social support for physical activity, cultural/environmental support, religious beliefs and support, and accountability to stay healthy (Table 1).

Initial KII questions were developed following the guidelines outlined in *How to Design Survey Studies: The Survey Kit* and were structured by using open-ended questions with follow-up prompts.²⁶ The questions were created by the academic and community partner and further refined by the members of the community advisory board. Pretesting was performed before the start of the study with 2 kidney transplant patients to elicit feedback and improve clarity. After the start of the study, the core team, along with a qualitative analyst, reviewed the interview results and iterated the questions during weekly meetings in the data collection phase.

Dialysis Clinic, Inc (DCI) facilities in the immediate Charleston County, South Carolina area were used as the study setting. Inclusion criteria included any dialysis patient who underwent dialysis at the DCI centers, was at least 18 years old, and was on the kidney transplant waiting list as confirmed by the Medical University of South Carolina transplant center. Five DCI centers were chosen and 30 potential participants were randomized to be approached with the intent of continuing interviews until saturation was reached. The 5 centers' settings varied, but each had open areas with a moderate amount of background and machine noise with multiple patients in dialysis chairs within 10 feet of one another.

One researcher (J.S.) administered the KIIs individually to all participants. The researcher was a white man who holds a doctorate from a Public Health background who was currently a postdoctoral fellow at the university's hospital system. The researcher had 3 qualitative expert nursing faculty mentors who had guided training in performing KIIs during the preceding year. The researcher had no prior contact or relationship with the participants. Clinical staff at the dialysis center performed the initial face-to-face approach with each patient at the centers to gauge interest in participation. Interested patients were then introduced to the researcher (J.S.) who subsequently conducted the consent process and administered the interview. An information sheet was given and reviewed with the participant describing that the interviews would be used in the development of a wellness program for dialysis patients. As an incentive, a \$10 gift card was given at the end of the interview.

The procedures for KIIs followed the guidelines outlined in *The Survey Toolkit*, 2nd edition.²⁷ A hands-on demonstration was performed with an array of arm-, hip-, and wrist-based activity monitors, Wi-Fi scales, and fitness mobile applications. Participants were allowed to hold the devices to gather feedback. All KIIs were recorded with a voice recorder, and verbal and nonverbal observations were captured with field notes. Responses from the KII were verified by summarizing the notes back to the participant to address any

misinterpretations, although records were not given to the participant. The interviews lasted between 40 and 70 minutes, and no repeat interviews were administered. Field notes were transcribed with additional contributions from a second researcher (L.S.) who reviewed each audio recording. Four recordings were randomly submitted to the community partner (T.A.) to compare against the field notes to ensure that all questions from the KIIs were covered before the qualitative analysis.

Qualitative Analysis

NVIVO 10 (QSR Int) software was used to organize and manage the data. Initial coding was performed line-by-line for each transcribed interview and categorized under the subject headings preidentified through the KII script (Table 1). Data were analyzed separately by 2 trained individuals (J.S., P.R.) by using content analysis and a process of categorization (coding) based on subject matter and patterns expressed in the texts. The constructivist grounded theory principles outlined by Charmaz²⁸ were used to underpin the qualitative analysis. Constructivist grounded theory analysis generated themes in the interpretive tradition about the group's reported health practices, support and barriers to physical activity, stress, and lived experiences through the general processes of memo writing, analysis of text and cues, diagramming concepts, focused coding, and continuous reexamination of data for new discovery and patterns until generalized themes emerged.²⁹ Each transcript was reviewed several times, and categories emerged based on common thematic patterns across responses. The most frequently occurring and/or significant codes were identified and compared across transcripts. Memos were written to analyze the meaning of these codes to determine their significance as a supportive factor or barrier to physical activity. Analysis included exploring both explicit text and latent meaning. Results were then presented for feedback from the members of the Community Advisory Board, including 2 of the dialysis patient participants.

Results

Twenty-five patients were approached during the first 2 hours of a dialysis session from 5 centers. Three patients declined noting that they were too tired (n=2) or not interested in participating (n=1). The study was halted once both theoretical and descriptive saturation were reached, which occurred at a sample size of 22 participants. Descriptive saturation was reached when no new descriptive codes or themes emerged. Theoretical saturation was reached when the 2 evaluators understood how the texts, codes, and the underlying constructs interconnected.²⁸

The participants' demographic characteristics, presented in Table 2, indicated a mean age of 46.0 (SD, 10.7) years with 45% being female and 82% African American. The mean amount of time on dialysis was 6.7 (SD, 4.3) years, and the majority had multiple comorbid conditions including essential hypertension (86%) and diabetes (27%). Figure 1 portrays the use of cellular devices and attitudes toward mHealth technology for engagement in a physical activity wellness program: 73% had smartphone access, 95% were interested in technology to foster physical activity, and 100% showed interest in using physical activity monitors.

From the qualitative analysis, 12 original categories emerged from the data, accounting for all interview responses centered on their influence on physical activity (Figure 2). According to Charmaz,²⁸ a good categorical system emerges from the data and is useful when describing and explaining the phenomenon under study. As part of the qualitative process of confirmability, the 2 independent researchers compared the categories that emerged from their independent analyses of the data. Following review and discussion, the categories were further collapsed to simplify the direct relationships related to physical activity. Once the final categories were determined, 9 themes or threads of underlying meaning emerged and were used to construct a thematic conceptual framework. An additional model showing 7 categories as well as a diagram identifying barriers to and supports of physical activity were also illustrated (Figure 3). Exemplars were then chosen to best demonstrate the features of each theme (Table 3), and provide examples of perceived barriers, attitudes, and facilitators to engage in and adopt physical activity for the sample of participants. The following sections describe each of the final 9 themes that made up the conceptual framework.

Physical Activity Is Optional

Many participants described physical activity as being active and “moving around.” Physical activity was not always described in relationship to a particular type of physical activity, although many provided examples that were enjoyable for them (eg, mostly walking). Reported barriers to physical activity included dialysis, motivation, fatigue, problems with joints, muscle weakness, or pain in lower extremities during physical activity. Perceived benefits of physical activity included weight loss, an effective way to cope with stress, and improved self-image. No participants reported associations or connections of physical activity with the long-term anticipated health outcomes of receiving a kidney transplant. Physical activity was perceived as optional and good to do, but not necessary for long-term health goals. Seventy-three percent responded that they used walking or bicycling at a moderate intensity between 15 and 60 minutes per session several times per week, with 14% reporting upper body strength training at a light to moderate intensity. The overwhelming majority indicated that they would like to exercise alone or with a close relative or significant other who could help motivate them to do more. Most stated that they would not be interested in exercising at their dialysis center and preferred a plan around exercising on nondialysis days.

Social Support Goes Both Ways

The participants described social systems as significant others, close relatives, friends, children, and coworkers who can potentially promote, support, or act as a barrier to physical activity. Identified barriers to physical activity included friends and family members not modeling exercise behaviors and not encouraging the participants to exercise. Identified behaviors supportive of physical activity by social networks included modeling physical activity and encouraging them to join in, scheduling activities that involved physical activity with the participants, or verbally encouraging the participants to become more physically active. These preliminary findings appear to support the notion that social support may have a mediating role in the participants’ decision making about engaging in physical activity.

Chronic Stress of Living and Finding the Means to Persevere

Sources of stress for these participants included unemployment, disability, financial constraints, not having a support system, dialysis days, caregiving role (eg, taking care of parents, children), not having time to do previously enjoyed activities because of scheduled dialysis, waiting on a donor, and negative effects of illness including death. The participants discussed using a variety of coping strategies, including prayer, listening to music, playing games, practicing spirituality, talking to someone, spending time alone, reading, emotional eating, exercise, and visual imagery. The subthemes of hopefulness, and self-efficacy (ie, sense of being able to engage in a program for self-management of end-stage renal disease including physical activity) began to emerge from the participants' interviews as they described their stress and ways that they were managing the stressors of their daily lives.

Spirituality As Strength and Connectedness

The majority of participants (n=18, 82%) discussed the positive benefits mentally, spiritually, and physically from their belief in God and from the social support of their religious communities. Benefits include feelings of hopefulness, strength, motivation to continue living, connectedness (sense of belonging), and the role of faith in being able to cope with their chronic illness and while waiting with uncertainty of whether they will receive a kidney transplant.

Living With Chronic Illness

Participants described how their lives had been affected by renal failure, comorbid conditions, and dialysis. Factors such as lower energy levels on dialysis days and changes in daily routines, habits, and social interactions inducing stress and bringing on an awareness of decreased quality of life were described. Participants discussed wondering why this had to happen to them.

Social Determinants of Health

Participants described how social health factors such as employment, transportation, age, sex and role expectations, social inclusion or exclusion, and others that were both supportive and hindering influenced health outcomes, illness, stress, and coping.

Time, Waiting, and Uncertainty of Death

Participants described time in terms of schedules on dialysis days and nondialysis days. Participants also noted how they felt living with the uncertainty of health outcomes when dealing with chronic renal failure and waiting for a potential donor.

Self-Management

Participants discussed the various ways in which they managed their chronic conditions, stress, activities of daily living, and social interactions with others. These self-management strategies included work and taking up hobbies, stress reduction strategies, exercise, dietary patterns, and daily routines on dialysis days and nondialysis days.

Technology

Participants rated their comfort level with technology in general and the potential benefits of incorporating technology in their lifestyle to measure and improve their health. The majority of respondents (91%) stated that their comfort level was 4 to 5 on a Likert scale of 1 to 5, with a “5” rating being very comfortable. Participants perceived that technology may be useful in increasing their awareness of eating patterns and how much physical activity they were doing (ie, self-monitoring). Many implied that self-monitoring may lead to increased physical activity and spoke about how it could affect their confidence in managing their condition. There was interest in monitors to quantify how much physical activity they were performing. There was no clear model of physical activity monitor that fit the majority of the group, with differing preferences for where to wear the monitor. The 2 themes of self-monitoring and self-efficacy reemerged as it related to the perceived benefit of using mobile technology.

Discussion

Several themes were identified that influenced dialysis patients’ current behaviors, supports, and barriers related to physical activity (Figures 2 and 3). The majority of patients preferred to engage in physical activity outside of the dialysis centers on their own time on nondialysis days. This is a divergent idea compared with promoting intradialytic exercise programs used in previous research.^{9,11–13} Physical movement is limited in dialysis chairs and patients reported that fatigue levels are higher on dialysis days, which agrees with prior findings.⁷ Development of patient-centered, at-home physical activity exercises may be a better approach to address these barriers and sustain the higher levels of intensity, frequency, and duration needed for reaching aerobic, strength, or weight loss goals. Most participants reported that they preferred not to exercise at the dialysis center (eg, self-conscious, make others feel bad, too tired). Participants noted that they preferred an environment where they could exercise alone or with a close friend rather than belonging to a health club, implying a need for social components in a program. Because dialysis populations are at greater risk for sarcopenia,³⁰ having strength exercises is necessary to preserve muscle mass. The findings indicate that dialysis patients were open to the idea of self-monitoring their current behavior and improving their self-efficacy to increase their physical activity as long as the barriers to fatigue (ie, timing of the intervention) and physical limitations are addressed.

An interesting finding was participants’ lack of knowledge about how physical activity programs may assist them in maintaining their health, staying on the transplant waiting list, and reducing the risk of premature mortality.⁴ Future programs targeting increases in physical activity would most likely benefit from educating patients about these and other benefits such as improvements in well-being, higher quality of life, and increasing their likelihood of staying eligible to receive a kidney transplant.³¹

Although grounded theory does not allow assumptions about how strongly our themes are associated with physical activity, they do provide direction to address patient barriers and develop hypotheses on how to develop patient-centered strategies to promote health via physical activity. These themes, supported by CBPR approaches, should prove helpful in the development of theory-guided, patient-centered physical activity programs. Implications

from the identified themes include developing a social support system, perhaps by seeking out already active family members or friends, especially those living near the patient or potentially facilitating means of establishing small groups to be active with on nondialysis days. One strategy could suggest forming small groups of dialysis patients to engage in a physical activity program on nontreatment days at or away from the center. The social support mechanism may also serve as a coping strategy for chronic stress and could foster a measure of control over their health condition.

Tailoring the components of physical activity program materials was found to be important to account for patients' preferences, resources, and physical abilities. For example, during the interviews, participants' preferences were split mostly between the wrist- and hip-based physical activity monitors. This finding indicates that future studies may need to allow options for what type of physical activity monitors can be selected due to personal preference. Technology can be used to address many of the tailoring needs both for self-monitoring and support. Support can be given through text messaging and short video education clips, as well as providing access to social circles, so that dialysis patients may understand their health condition better, communicate their needs, and stay connected to similar patients or their providers. One of the largest benefits of using technology found here is how it may assist in the self-management of the patients' goals by using real-time feedback. The majority liked the idea of using these approaches and receiving immediate daily updates of their progress in reaching physical activity goals via the activity monitors.

Limitations

Several limitations of this study should be identified. Although saturation was reached, many of the concepts need to be empirically evaluated. Conclusions drawn from this study cannot be generalized to other populations of dialysis patients but do provide insights that could be explored in other groups of dialysis patients. It is important to note that the majority of the group was made up of African Americans on hemodialysis and that peritoneal dialysis patients were not included in this study and may have different characteristics pertaining to their lifestyle habits.

Conclusions

Engaging dialysis patients is essential when designing future physical activity and wellness program initiatives to foster sustained use and target desired outcomes. The CBPR approaches provide a useful framework to involve stakeholders at all levels of care, especially the patients. Results from this study suggest the importance of educating dialysis patients who are on the transplant waiting list about the need to stay physically active and suggest that patients were very receptive to mHealth technologies to implement home-based physical activity programs. The identified themes found in this study may aid in the development of theory-based physical activity and wellness mHealth programs for dialysis patients.

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Figure 1. Characteristics of using mobile technology among dialysis patients on the transplant list. Percentages based on yes/no responses from interviews of 22 key informants.

Figure 2.
Factors associated with physical activity.

Figure 3.
Intrapersonal barriers and supports for physical activity.

Table 1

Interview topics for dialysis patients

Time management
Motivations behind kidney transplant
Fatigue level
Work/hobbies
Physical activity
Perceived limitations with mobility and other functional limitations
Dietary habits
Stress/depression
Social support
Cultural/environmental support
Religious belief and support
Technology use
Accountability and sustainability

Table 2

Demographic characteristics of 22 participants

Variable ^a	Value
Years on dialysis, mean (SD) [range]	6.7 (4.3) [1–15]
Employed, %	14
African American, %	82
Female sex, %	46
Age, mean (SD) [range], y	46.0 (10.7) [29–66]
Married or in a relationship,%	33
Hypertension, %	86
Diabetes, %	27
Education level, %	
Less than high school	14
High school or equivalent	50
Some college or higher	36

^a All variables were self-reported measurements by participants.

Table 3

Exemplar quotes

Theme	Quote
Physical activity is optional	<p>More about self-image: “I can do a lot of things. Sometimes it is hard to think straight. I have a mental barrier. I would lose. In general it’s more about the look for me and feeling good about how I look. I’d like a flat stomach and feel better about myself.” (Participant 11, male)</p> <p>More about self-identify: “I guess my central concern lately is the amount of weight that I have put on...” (Participant 18, female)</p>
Social support goes both ways	<p>Social system as support: “My mom and I used to go to the gym together but now we don’t because her work schedule changed. We used to ride bikes together in her subdivision but once again we don’t anymore because of the schedule change. They are always encouraging me to get up and be active. My mom always says that working out helps with your self-esteem. . . . I have friends but they don’t want to work out either.” (Participant 10, female)</p> <p>Social system as barrier: “My friends are in the same boat. Instead of encouraging each other we just say, ‘You know how it is.’ Then we will come up with our excuses for not losing weight or joining a program.” (Participant 18, female)</p>
Chronic stress of living and finding the means to persevere	<p>“Usually I am pretty relaxed. I need to incorporate lifestyle changes that produce some beneficial results like concentrating on exercise programs and lower calorie food preparations . . . just because I am on dialysis it doesn’t mean I can’t do other things, because I can certainly do plenty more than I do now.” (Participant 18, female)</p> <p>“I try to think positively. I was hard headed at one time but now I am more positive and take it 1 day at a time.” (Participant 10, male)</p>
Spirituality as strength and connectedness	<p>“It is a big part. That is the reason why I am still hanging on. It motivates me behind it all. Keep the faith. I try to go to church every Sunday even when I just don’t feel like it. The congregation motivates me.” (Participant 6, male)</p>
Living with chronic illness	<p>“Occasionally I feel down. Sometimes I can’t do what I want because I have to come to dialysis. It is hard to go out of town. There are phobias of being in other clinics since they don’t know you like your home clinic. It is not the same as handling it on your own.” (Participant 3, male)</p>
Social determinants of health	<p>“Unemployed. I have not worked in the past 6–8 months. I am a man and I want to work. I have been down about it. I am trying to get my resume out and also networking.” (Participant 9, male)</p> <p>“I will only stress if I think about not being able to work because there are bills that I have to take care of. Living on disability is hardly enough for it.” (Participant 10, female)</p>
Time, waiting, and uncertainty of death	<p>“I used to be more stressed when I was worried about not having a kidney or passing away and dying.” (Participant 7, male)</p> <p>“It saddens me to see others sitting in the chairs for 15–18 years. I get sadder for others more than for myself.” (Participant 5, female)</p>
Self-management	<p>“I buy most of my own food. On dialysis days, I don’t cook and on nondialysis days sometimes I may cook but most of the time I will eat there at my mom’s house. I don’t buy high-potassium foods at all. Phosphorus is in every food but I try to stay away or eat them in moderation. I always take my binders.” (Participant 10, female)</p>
Technology	<p>“I would try it out. It would give me more knowledge about what how I am doing and would give me the ability to track what I am doing. I’m not exactly health conscious and it might change my attitude once I had more information to go on.” (Participant 18, female)</p>