

# The Self-Management Experience Of People with Mild to Moderate Chronic Kidney Disease

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The importance of early identification and treatment for people with chronic kidney disease (CKD) is gaining increasing attention. Preservation of renal function and prevention of progression to end stage renal disease (ESRD) have been identified as essential goals for nephrology care (International Society of Nephrology, 2006; National Kidney Foundation [NKF], 2002). Although early diagnosis and treatment can profoundly alter disease trajectory; little focus has been directed toward the subjective experiences and their potential role in the modification of outcomes in people with mild to

*This qualitative, exploratory study examined the self-management experiences of people with mild to moderate chronic kidney disease (CKD, Stages 1-3) to elicit participants' perceptions of health, kidney disease, and supports needed for self-management. Findings revealed a process of renegotiating life with chronic kidney disease, which encompassed Discovering Kidney Disease and Learning To Live With Kidney Disease. A number of themes were identified, including searching for evidence, realizing kidney disease is forever, managing the illness, taking care of the self, and the need for disease-specific information. The findings indicate participants with early CKD want to self-manage their illness in collaboration with health care providers. As well, people with early CKD need guidance and support from health professionals to successfully self-manage. Nephrology nurses are uniquely positioned to provide this support while collaborating with other care providers to facilitate self-management.*

## Goal

To explore, describe, and stimulate interest in the self-management experiences of patients with mild to moderate CKD.

## Objectives

1. Describe the methods used in a study to elicit perceptions of health, kidney disease, illness management, and support needed for self-management.
2. Summarize the overall responses from patients asked about their health, disease, and ability to self-manage their care.
3. Relate needs for further studies to determine the perceptions of patients about the need for management of their health.

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moderate CKD. While innovative biological agents and technology sustain life, medical treatment alone will not address the psychological and behavioral complexities inherent in any chronic illness including CKD. Incorporating treatment recommendations with the person's life circumstances necessitates self-management in early CKD. However, little is

known about the self-management experience in early CKD or the role of the health care team in supporting self-management efforts. Multidisciplinary, collaborative support of self-management efforts at an early stage of CKD could provide opportunities to promote effective self-management and ultimately delay illness progression.

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## Background

The American Nephrology Nurses' Association (ANNA) has added self-management to the latest edition of the *Nephrology Nursing Standards of Practice and Guidelines for Care* (Burrows-Hudson & Prowant, 2005). For people with chronic illness, the term self-management is defined as the knowledge to care for oneself and the ability to make treatment-related decisions, monitor symptoms, set goals, and develop successful partnerships with healthcare providers (Barlow, Sturt, & Hearnshaw, 2002; Lorig & Holman, 2000). The five fundamental self-management skills include: problem solving, decision making, resource utilization, forming client-healthcare provider partnerships, and taking action (Lorig & Holman, 2000).

The self-management perspective is receiving increased attention in the CKD literature (Curtin & Mapes, 2001; Curtin, Mapes, Schatell, & Burrows-Hudson, 2005; Richard, 2006; Thomas-Hawkins & Zazworsky, 2005). To date, however, the focus remains primarily on ESRD. Curtin and Mapes (2001) defined self-management in hemodialysis as the "patients' positive efforts to oversee their health care, to optimize health, control symptoms, marshal medical resources and minimize intrusion of the disease into their preferred lifestyle" (p. 386). Curtin and colleagues (2005) further conceptualize self-management in terms of two distinct domains: 1) self-management of health care, including adherence and self-care; and 2) self-management of everyday life, focusing on achieving and maintaining "normality" in roles and functions. Additionally, in a recent review of the literature on self-management in hemodialysis, Richard (2006) concluded that self-management in this population includes self-care, as well as managing the prescribed regimen, which draws attention to the need for research examining self-management in CKD from a broader perspective that incorporates both illness and non-illness dimensions.

Research evidence supports the importance of self-management skills to achieve positive clinical outcomes. For example, Tsay (2003) and Tsay, Lee, and Lee (2005) developed an educational intervention that included symptom interpretation and other self-management skills for people requiring hemodialysis. These studies found participants in the intervention group demonstrated better self-management compared to those in the control group, as evidenced by reduced weight gain, stress, and depression (Tsay, 2003; Tsay et al., 2005). While these results should be interpreted in the context of study limitations, the findings are promising and suggest that self-management interventions have potential in this population. Research in patients with diabetes suggests that self-management program implementation based on the five fundamental skills noted previously improves health outcomes. Several studies investigating the efficacy of diabetes self-management programs found that participants had lower glycosylated hemoglobin levels and decreased hospitalizations related to illness complications when involved in self-management programs (Bodenheimer, Wagner, & Grumbach, 2002; Heisler, Smith, Hayward, Krein, & Kerr, 2003; Lorig et al., 1999). These findings suggest that approaches to care that support self-management skills improve health outcomes and quality of life for people with chronic illnesses (Marks, Allegrante, & Lorig, 2005), and this may also be the case for people with early CKD.

People living with mild to moderate CKD must, by virtue of the chronicity of the illness and its complexity become self-managers. Clinical guidelines from the Kidney Disease Outcomes Quality Initiative (KDOQI) recommend strict blood pressure control and reduction of proteinuria to slow CKD progression (NKF, 2002). These outcomes cannot be achieved without active involvement of individuals with CKD in managing these aspects of their care. If people with chronic dis-

ease that includes early CKD, avoid self-management and are not actively involved in their own care, positive clinical outcomes are difficult or impossible to achieve (Loghman-Adham, 2003; Lorig & Holman, 2000; Marks et al., 2005).

Self-management theory is based on problems perceived as important by the person living with the illness; therefore, healthcare providers need to share responsibility for treatment decisions with clients (Richard, 2006; Thomas-Hawkins & Zazworsky, 2005). Levin (2005) points to the need for coordination among health care providers to achieve optimal CKD management. As a first step, research that examines perceptions of individuals living with early CKD will provide insight into their experiences in living with and managing the illness. The purpose of this study was, therefore, to examine self-management and health care experiences of men and women living with mild to moderate kidney disease.

## Research Design and Methods

This qualitative study was part of a larger descriptive, cross sectional, quantitative investigation examining psychosocial variables and health behaviors in people with mild to moderate CKD. Ethics approval was obtained from the Research Ethics Boards at all participating healthcare centers and affiliated universities. Sixty participants were recruited for the larger study from nephrology clinics in Toronto, Ontario, Canada. Adults who met the following inclusion criteria were invited to participate: 1) males and females with biopsy-proven glomerular disease, 2) observation period of 1 year or more, 3) glomerular filtration rate (GFR) of 30 ml/min or higher, 4) no other chronic illnesses, and 5) the ability to read and comprehend English. After informed consent was obtained, study participants completed a series of standardized questionnaires. A subset of these participants ( $n = 14$ ) were invited to participate in a qualitative semi-structured

**Table 1**  
**Demographic Characteristics (n = 14)**

Characteristic	
Age (mean, SD)	41.3 (16.19)
Sex (frequency)	
Male	6
Female	8
Marital Status (frequency)	
Married	7
Single	5
Common-Law	2
Years of Education (mean, SD)	14.4 (4.08)
Years Aware of Kidney Disease (mean, SD)	6.3 (5.22)
Biopsy Diagnosis (frequency)	
FSGS	5
IgA	6
Glomerulonephritis	2
Inadequate biopsy	1

interview at a later date. A purposive approach to sampling was used for this subset to ensure representation of men and women of varying ages.

### Participants

Detailed demographic characteristics of study participants are outlined in Table 1. The study participants included 6 males and 8 females who ranged in age from 19 to 69 years. Overall, the sample was well educated and either married or living with a common-law partner. On average, participants reported being aware they had kidney disease for 6.3 years (range of 1 to 18 years).

### Data Collection

Face-to-face interviews were conducted using semi-structured questions developed by the principal investigators to elicit participants' perceptions of health, kidney disease, illness management, and supports needed for self-management. For example, questions included: 1) How would you describe what it means to be healthy? 2) Could you describe your kidney disease and in

what ways it affects your health? 3) What do you think your role should be in managing your illness? 4) What kinds of supports would you like to see put into place to help you better manage your illness? All interviews were taped and transcribed verbatim. Memos were used to document initial impressions, voice fluctuations of participants, and contextual observations.

### Data Analysis

A qualitative content analysis approach was used to code data. After listening to all tapes in their entirety, dialogue pertaining to health, illness management and suggestions for healthcare providers was extracted for analysis. Transcripts were manually coded by the first author (LC) by reviewing text line by line to examine the structure of the narrative and identify the larger experience as described by the participants. Dialogue that appeared central to self-management was highlighted and temporarily coded into a theme. Transcripts were repeatedly reviewed to further develop emerg-

ing themes that reflected the self-management experience as perceived by the participants. Dialogue from transcripts was reviewed to find meaningful descriptions of the participants' experiences, and subsequent dialogue was compared to that of previous interviews. The themes were defined and sourced verbatim. Quotes were then cataloged under each corresponding theme (Speziale & Carpenter, 2003).

Two study investigators (HB, EM) trained in qualitative research methods reviewed cataloged data to establish confirmability of findings. Numerous face-to-face meetings between these investigators and the first author took place to refine the themes. The data analysis process continued until members of the research team agreed that the themes accurately reflected the participants' self-management experiences. Peer debriefing was used to enhance confirmability and was achieved by having the team's research nurse coordinator independently code two transcripts using the coding scheme previously described and identify the same themes as the other research team members.

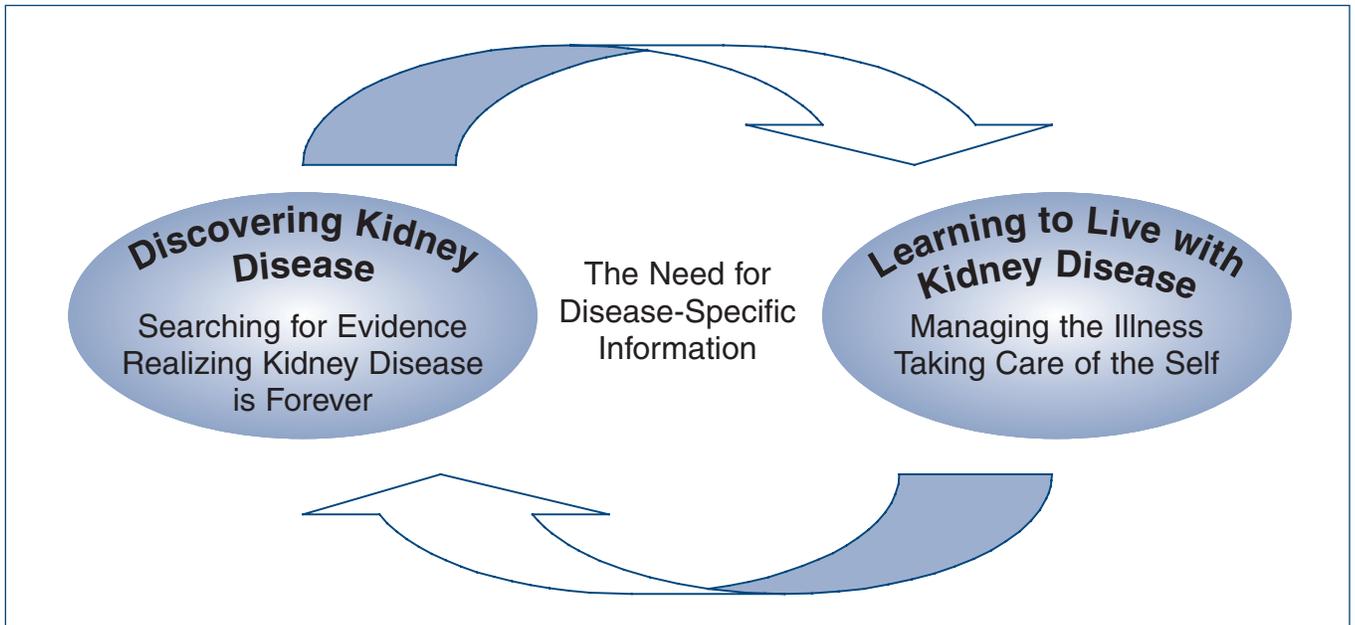
### Findings

The conceptual map in Figure 1 delineates the iterative process of *Renegotiating Life with CKD*. Renegotiating life was an iterative process where participants gained knowledge of kidney disease and its implications (*Discovering Kidney Disease*) and developed strategies to integrate the illness and treatment into their lives (*Learning To Live With Kidney Disease*). Participants moved back and forth between *Discovering Kidney Disease* and *Learning To Live With Kidney Disease* as they received new information about their illness and subsequently integrated this into their lives. Central to this process of renegotiating life was the need for disease-specific information.

### Discovering Kidney Disease

The iterative, renegotiation pro-

**Figure 1**  
Renegotiating Life with Chronic Kidney Disease



cess started with participants describing *Discovering Kidney Disease* as becoming “aware” of the illness. For some this process involved searching for evidence or clues to help confirm the diagnosis. This was particularly true for those who did not experience any symptoms and commented on the absence of symptoms by saying, “I’m not sure I have kidney disease.” and “I didn’t even know I had it until they [doctors] did various tests...” Participants described *Discovering Kidney Disease* as an ongoing reexamination where they redefined their lives as a result of having to live with kidney disease. One participant described this by saying:

“Well as far as the kidney problem is, I guess I have a problem. And I don’t know how big a problem it is because I don’t really even want to know, type of a thing. But I don’t feel anything. I don’t feel any discomfort.”

**Realizing kidney disease is forever.** An important dimension of *Discovering Kidney Disease* was *realizing kidney disease is forever* or coming to the realization that kidney disease was a persistent illness. Participants shared descriptions of discovering

the permanence of kidney disease. Realizing kidney disease is a life-long illness was an entirely separate discovery from the illness itself. Many participants struggled with questions around whether the prescribed medications would “cure” their kidney disease. Common language used by participants to describe this theme included, “I didn’t realize...,” “It doesn’t go away,” and “long-term treatment.” One participant stated that “... the doctors don’t really tell you that ... this is the way you’re going to be forever.” Another participant described the uncertainty around the permanence of kidney disease in the following way:

“...when you go home you think about it [kidney disease]. Yes, there were questions but the biggest question that I would always think about every time I go in after my doctor’s appointment was is this ever gonna go away?”

Many participants recalled not being informed that their kidney disease was chronic until the second or third medical visit, typically 3 to 6 months after hearing the initial diagnosis. Some participants perceived a “withholding” of information about

the persistent nature of the illness and on reflection would have preferred hearing this sooner. One participant explained:

“I think information should be offered in the beginning, it shouldn’t be withheld, and it’s much harsher to find it out in the end. Hey okay, you’re looking at being on these blood pressure meds the rest of your life, it’s not going to go away. You need to have that realistic expectation from the beginning.”

Interestingly, none of the study participants used the word chronic to describe their illness. Other terms including “life-long” and “forever” either preceded or followed their descriptions of kidney disease. Participants identified the realization that kidney disease is a ‘long-term’ illness as important to their self-management experiences because this information motivated them to be more actively involved in their care and in managing the illness.

### **Learning To Live With Kidney Disease**

After struggling with the discovery process, participants began *Learning To Live With Kidney Disease*.

In *Learning To Live With Kidney Disease*, participants assimilated new information, i.e., understanding that their kidney disease is permanent, and incorporated this new information into their daily routines. This was accomplished by developing the strategies of *managing the illness* while at the same time being more vigilant with regards to *taking care of the self* and their overall health.

**Managing the illness.** Self-management activities described by participants primarily involved renegotiating their days around appointments and prescription medications. Despite the fact that participants were often asymptomatic, they were all prescribed medications to treat their kidney disease and its consequences. They were also required to visit their nephrologists routinely as well as having blood work drawn and providing urinalysis specimens. For example, one woman shared, “*I have a little thing I keep in my purse. And I keep my records....*” Other participants struggled with the prescribed regime and restrictions as “*... It was a lot more work because of all the things that you had to learn....*”, “*I don’t eat out anymore....*”, and “*It’s tough taking so many pills.*” For some participants, self-management involved being actively engaged in treatment-related decisions. These participants wanted their concerns to be addressed during clinical visits in order to make treatment-related decisions. As one participant explained her role in managing the illness:

*“I think I’m the boss in this...; you’ve got to be the one to do it. So basically I think I’ve played a major role. The doctor can only guide you; you’ve got to be the one to basically do it.”*

Other participants described themselves as wanting to be “*the leader*” or “*the driver*” in their illness management. In contrast, some participants preferred to receive more direction from the physician in relation to treatment decisions. Yet when daily self-management decisions, such as taking medications or monitoring their illness were discussed,

participants expressed the necessity to be actively involved in their own care. For example, one participant described how she modified her treatment based on self-monitoring:

*“Well I kind of figured it out because my legs were getting so skinny and I figured out I was taking too much of those water pills. So when I went to the doctor, I told him I cut them down. And you know he cut it down after I cut it down. You know, sometimes you’re your own best doctor. The doctors can’t figure out really everything.”*

While individuals varied in the degree to which they wanted to be involved in decision making, collaborative relationships were identified as important in negotiating treatment demands. A noteworthy finding was that the participants’ healthcare experiences were with physicians alone and other healthcare providers were not identified. Participants believed physicians had scientific, disease-related knowledge but did not necessarily have the experience of living with kidney disease every day. Integrating treatment recommendations into their preferred lifestyles was time consuming and difficult to master despite participants’ genuine efforts to do so. One participant related how difficult it was to self-manage fluid restrictions by stating the following:

*“I think the really hard part was the liquid at first...when should I have my discretionary liquid that I can have...manage everything around so I can have a 250-oz, in total. I didn’t drink coffee. And a 250 milliliter bottle of coke that was like all I could afford in terms of pleasurable liquid. It sounds so silly, but it was like my whole days were preoccupied with where I was going to spend my liquid [allowance].”*

For some the absence of treatment options and guidance on incorporating recommendations into their preferred lifestyles were major obstacles in the self-management experience. One participant summarized the experience this way:

*“...you are on a road with no cut-offs, you are a victim to the road. You know what, right now the medical system*

*is the road or...the road to recovery, I can’t turn off, it’s one long road. When you are on that highway and there’s no cut-offs, you are now a slave to the road, you can not get off. Once someone is given options, it’s up to the person to start choosing.”*

According to study participants, being involved in one’s own care implies the availability of options or strategies they could use to help them manage with their treatment. Where possible, participants would like to be presented with different approaches to managing their kidney disease that would enhance their health. As well, diverse lifestyles presented unique challenges making “generic” treatment recommendations difficult to follow. For example, participants wanted to make treatment-related decisions in collaboration with their healthcare providers that coincided with lifestyle preferences, which would require more extensive discussion and dissemination of disease-related information. As one participant described:

*“... just a little guidance with your own disease itself ..., that would help people accept a lot faster and be able to move on and do their treatment the proper way. I spent a good; I’d say at least 6 months dancing around with my treatment, just not taking it serious. I wouldn’t say really serious, just it seemed a bit excessive the amount of medication.... There’s no way it could be that bad, you feel good, that’s the worst thing about it in the beginning you don’t realize...”*

Clearly, the absence of symptoms influenced the participants’ perspective on taking prescribed medications. As suggested by the previous participant, more guidance may help people accept the illness and importance of following treatment recommendations.

**Taking care of the self.** Participants indicated that in addition to managing their CKD, they also engaged in general wellness activities to maintain their overall health. Activities varied from regular exercise to eating healthy, and for some included quitting smoking or reducing excessive alcohol con-

sumption. As one participant explained, *"I changed from kind of a lounge lizard sitting in bars, smoking and stuff like that, yeah, to, you know, more healthy life."* Some participants described engaging in hobbies or events simply for enjoyment that they believed improved their health, described by one participant in the following way:

*"I guess I have to find time for myself to not always feel that I am rushing around for other people ... to take time for yourself. ...spending our time on things which you enjoy doing as opposed to things which you feel obligated to do..."*

General healthy lifestyle strategies were distinct from activities specific to self-managing early CKD.

### **The Need for Disease-Specific Information**

Gaining knowledge that supported self-management was central throughout the renegotiation process. Participants described *"a lack of information"* particularly, *"in the beginning"* and what was available was often difficult to comprehend. As one participant explained:

*"I had to go onto the internet to read really what this [kidney disease] is about...I still didn't understand what was really happening here. I think too the medical terminology of all of this, was very hard to understand. What we need is someone to break it down in plain English, what's going on..."*

Information relevant to their diagnosis was primarily available during clinic visits, which were often perceived as insufficient to meet participants' needs for information. One participant stated the following:

*"I think once you get diagnosed it would help to have a little education, doctor explaining to you in 15 minutes what this is about is not nearly enough to find out the side effects and what you're really looking forward to over the course of time. I think it would be better if you had that support in the beginning, someone to educate you...especially for young people...Information pamphlets, I didn't see anything like that on my disease."*

Another participant described

the need for information in the following way:

*"Explaining the disease to the fullest, the meds, what's involved, what can happen, changes that are going to be happening in your life so that when it happens you're not wondering what's going on now."*

Participants clearly stated they wanted specific not generic disease-related information. Specific information pertained to providing detailed explanations about the illness itself, which also took into account the life circumstances of the individual. As one participant explained, *"You can't tell a 15-year-old the same thing that you are telling me, that you're going to tell a 55-year-old. It just doesn't ... for peace of mind it doesn't work."*

Some participants perceived a need for greater awareness among healthcare professionals that people newly diagnosed with CKD *"don't know what to ask"* and *"...even if they [patients] don't ask try and explain everything... cause a lot of people don't ask questions."* Support and *"a little guidance"* with diet, fluid, and medication management were consistently identified as areas requiring more education.

### **Discussion**

Clearly, there are significant unmet needs for people with CKD. The development of collaborative care models that support self-management in early CKD is hampered by the lack of research in this area. Our findings suggest that people with early CKD need more disease-specific education in conjunction with collaborative healthcare partnerships to successfully self-manage their illness given the often asymptomatic nature of early CKD.

Despite receiving a medical diagnosis, some participants identified the absence of signs or symptoms of illness as a barrier to self-management since they couldn't make the link between the need for medications and "feeling well." Additionally, none of the participants used

the word chronic to describe their illness. The chronic nature of kidney disease and the necessity of taking medications, even when feeling well to manage the disease, were poorly understood by participants in the early period following diagnosis. More support and education at this time are therefore critical to help people recognize implications of the diagnosis and the need for ongoing treatment.

Other relevant information such as how to correctly self-administer numerous medications, integrate fluid and diet restrictions into daily routines, monitor symptoms, and learning to report relevant symptoms to healthcare providers were important self-management needs identified by study participants. The finding that participants described strategies to both manage the illness and to take care of the self is congruent with self-management literature that has described two distinct domains: self-management of the disease and everyday life (Curtin et al., 2005). It is unreasonable to expect physicians alone to meet all these needs, therefore multidisciplinary, collaborative efforts among health care providers is needed to fill this service gap. Involving nurses, for example, who are uniquely trained to address both the biological and psychosocial ramifications of illness, could provide people with early CKD the essential support needed to foster their self-management abilities and could potentially slow disease progression.

The perceived "withholding" of information found in this study coincides with other qualitative investigations in chronic illness. Thorne, Nyhlin, and Paterson (2000) also found a perceived "withholding" of disease-specific information particularly, regarding the chronic nature of the illness. In the present study, participants described "withholding" as having to wait several months before hearing that their kidney disease is permanent. It is possible this information was shared with participants but that they simply did not hear the

word chronic due to emotional distress. Alternatively, the correct diagnosis and prognosis may have taken some time to determine. Therefore, the information about the chronic nature of an individual's disease may not have been available on initial visits. While some participants would have preferred more information about their diagnosis, others described a reluctance to accept the diagnosis related to the absence of symptoms. This marked divergence in perception is important and points to the need for individualized assessments to determine readiness to learn about the diagnosis and treatment implications. As well, ongoing evaluation of the clients' understanding of the nature of the illness and treatment requirements may present an opportunity to provide information and clarify misconceptions. Again, a collaborative approach between those with early CKD and health care providers is urgently needed to meet the multifaceted aspects of CKD. Such an approach would allow for individualized plan of care and support people with early CKD as they develop their self-management skills. It would also provide opportunities for education, particularly around factors known to slow CKD progression such as hypertension.

As was seen in this study in CKD, previous researchers have described the need for more disease-specific information for people with other chronic illnesses. For example, Rogers, Kennedy, Nelson, and Robinson (2005) interviewed people diagnosed with inflammatory bowel disease (IBD) and found participants' concerns regarding disease prognosis, medications, side effects, and diet were not addressed. Koch, Jenkin, and Kralik (2004) conducted a qualitative study with people with asthma and discovered the importance of framing disease-related information within the context of participants' lives given the chronic nature of the illness. We observed similar problems in the CKD population. Participants were initially

unclear on whether their illness was chronic or curable, how to self-administer several medications daily, and how to manage symptoms. Participants described the need for specific as opposed to generic treatment information. The insidious progression of kidney disease poses different challenges as life circumstances change. Information specific to the person's sex, age, and stage of life is needed. To date investigating what people with early CKD would like to know about their illness, how this disease-specific information should be shared or what is needed for effective self-management has not been a focus of research.

The literature indicates that greater personal involvement in management of illness results in improved physical, emotional, and social functioning (Bodenheimer et al., 2002; Heisler et al., 2003; Lorig et al., 1999; Meers et al., 1996; Tsay, 2003; Tsay et al., 2005). Barlow et al. (2002) found that when asthma participants were trained to self-adjust medications using individualized written care plans, lung function improved as compared to those whose medications were adjusted via physician care alone. This provides support for directing health care providers to develop collaborative care models in CKD. Participants in this study described distress related to medication and symptom management that they believed was hampered by a lack of disease-specific education. Participants believed their role should include self-management and described frustration with the current absence of information and guidance from healthcare professionals.

Multidisciplinary care programs have demonstrated significantly better clinical outcomes and survival rates in more advanced stages of CKD as compared to standard nephrology care (Curtis et al., 2005). Research examining the role of Clinical Nurse Specialists (CNS) and Nurse Practitioners (NP) in the hemodialysis unit indicates that their presence reduced mortality rates

(Dwight et al., 2002; Harwood, Wilson, Heidenheim & Lindsay, 2004). Jolley and McGuirl (2000) found that when hemodialysis units served a minimum of 85 clients, nurse practitioners were cost effective. It seems reasonable that multidisciplinary, collaborative care could improve outcomes for people with early CKD. More research must be conducted to specifically explore early CKD, self-management, and collaborative care models.

### Implications for Nephrology Nursing Practice

The collaborative partnership fundamental for self-management could fill the void currently experienced by early CKD clients. Effectively integrating self-management theory into practice and broadening the scope of care by incorporating disease-related tasks with the clients' life circumstances could effectively support individual self-management efforts. Participants' responses suggest that further support and education is needed with respect to: 1) medication management; 2) monitoring, managing and reporting symptoms; and 3) credible, relevant, and accessible resources.

Previous research has not explored the phenomena of self-management in people with early CKD. As study participants clearly identified "*a 15-minute medical visit is not nearly enough*" to learn about the illness complexity and treatment demands. Nursing expertise is well-suited to conduct psychosocial assessments and incorporate the individuals' unique issues with medically approved treatment regimes. Additionally, prescribed regimens may have been poorly followed because the importance of taking medications correctly even in the absence of symptoms and disease progression was not always understood. Rich descriptions about the self-management experiences in people with early CKD in this study highlight the need for more comprehensive, collaborative, multidisciplinary

nary care. It is recommended that nephrology nurses develop a role for themselves within early CKD care and examine the efficacy of such roles related to self-management, health outcomes, and disease progression.

### Limitations

More research is needed as the small sample size in the present study may limit the generalizability of findings for people with early CKD. Additionally, participants' descriptions of their experiences were based on reflections of events that had occurred some time ago. Thus, research that focuses on how the self-management experience evolves over time is needed. Cultural diversity was difficult to achieve in this study as participants had to be able to read and speak English, and thus findings may not represent the experiences of people who are non-English speaking.

### Conclusion

The chronic nature of kidney disease combined with numerous treatment demands necessitates self-management. People with early CKD in this study emphatically asked for more support and guidance from healthcare providers to successfully self-manage their disease. Developing collaborative care models could eliminate barriers people experience when attempting to self-manage their illness. This study highlights the complexity of the experience in early CKD and demonstrates the need for further research to move toward multidisciplinary, collaborative models of practice that support the self-management efforts of people at the earliest phases of the illness.

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#### Nephrology Nursing Journal Editorial Board Statements of Disclosure

In accordance with ANCC-COA governing rules *Nephrology Nursing Journal* Editorial Board statements of disclosure are published with each CNE offering. The statements of disclosure for this offering are published below.

**Paula Dutka, MSN, RN, CNN**, disclosed that she is a consultant for Hoffman-La Roche and Coordinator of Clinical Trials for Roche.

**Patricia B. McCarley, MSN, RN, NP**, disclosed that she is on the Consultant Presenter Bureau for Amgen, Genzyme, and OrthoBiotech. She is also on the Advisory Board for Amgen, Genzyme, and Roche and is the recipient of unrestricted educational grants from OrthoBiotech and Roche.

**Holly Fadness McFarland, MSN, RN, CNN**, disclosed that she is an employee of DaVita, Inc.

**Karen C. Robbins, MS, RN, CNN**, disclosed that she is on the Speakers' Bureau for Watson Pharma, Inc.

**Sally S. Russell, MN, CMSRN**, disclosed that she is on the Speakers' Bureau for Roche/Abbott Labs.

- Marks, R., Allegrante, J.P., & Lorig, K. (2005). A review and synthesis of research evidence for self-efficacy enhancing interventions for reducing chronic disability: Implications for health education practice (part 1). *Health Promotion Practice*, 6(1), 37-43.
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