Practice What you Preach: The Kidney Diet Challenge

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Individuals with kidney disease are subjugated to a traditional kidney diet, restricting the intake of phosphorus, potassium, sodium, and/or protein. The theoretical rationale for these restrictions is to reduce hyperphosphatemia, hyperkalemia, and fluid volume overload and to preserve kidney function, among other benefits and considerations. Individuals with kidney disease not only face complex nutrient restrictions but often have to take into consideration dietary recommendations for diabetes, cardiovascular disease, and other comorbidities. Given these challenges, the high prevalence of nonadherence to the kidney diet is not surprising (1). Health care providers are one crucial pillar in promoting general health and behavior change among patients. Thus, strategies to increase health care provider knowledge and adherence to kidney diets may translate to improved dietary adherence among patients, which is one component of overall lifestyle and health behavior change.

Both patients and providers have been long overwhelmed and frustrated with the kidney diet (1). Patient’s value and seek both dietitian and health care provider support in making dietary changes (1). Without having knowledge about or attempting to follow a kidney diet, it can be difficult for practitioners to empathize with and guide patients to make complex dietary changes. Kidney dietitians may not be available in all clinics, and even if they are, they may lack the time to provide comprehensive dietary guidance. This makes it critical that other providers have the knowledge and confidence to reinforce these dietary recommendations and provide support (2). Unfortunately, nutrition has been historically underemphasized in some curricula in health and medical training (3,4).

Nephrologists and other kidney providers are well positioned to promote dietary behavior change among patients with kidney disease or at risk for kidney disease. In recent decades, many institutions and individuals have been working to increase nutritional education to address the paucity of dietary knowledge that physicians traditionally receive (3). Data also reveal that physicians and trainees have sought to increase their own nutritional knowledge and training (5). Consequently, some nutritional education among medical doctors has recently pivoted from lecture-based training to more “hands-on” applications and experiences. There is preliminary evidence that this approach is more engaging and effective than previous lecture-based methods (6).

In this issue of *Kidney360*, Norouzi et al. (7) developed a Kidney Diet Challenge to improve healthcare providers’ knowledge and engagement of kidney nutrition and to increase confidence in counseling patients with kidney disease. The study consisted of two parts: an online voluntary electronic questionnaire and the Kidney Diet Challenge. Nephrology trainees were given an optional survey assessing their nutritional knowledge during their in-training examination. Of the 291 fellows who responded, the median number of correct answers was two out of five (40%). Kidney diet knowledge did not differ by training year. Sixty-four percent of fellows rated their ability to advise patients about a kidney diet as less than 3 (on scale of 1–7, with 7 being the highest). Notably, 20% of fellows reporting receiving no formal kidney diet education. Thus, the authors identified that nutrition is indeed a knowledge gap among future nephrologists.

In the second part of the study, participants completed the Kidney Diet Challenge. Two hundred sixty-five participants (including 72 nephrology fellows) agreed to participate in the one-week diet challenge. The menu was prepared by the study dietitian, who was available throughout the week to answer any participant’s questions and to provide motivation. The Kidney Diet Challenge consisted of a webinar, sample diet, and social media (Twitter) engagement. Outcome measures for the study included participant demographics, type of provider, year of fellowship, and adherence to the kidney diet. The authors also captured metrics related to social media participation and engagement. Participants completed a survey at the beginning and end of the challenge. For the 70 (26%) participants who completed the challenge, the study investigators reported a significant increase in correct answers within the five-question knowledge survey ($P<0.001$). The percentage of individuals answering all five questions correctly increased pre (4%) to post survey (13%) but was not statistically significant ($P=0.11$). Post challenge, participants significantly increased their confidence to educate patients about a kidney diet. The Kidney Diet Challenge reached more than 400,000 unique individuals on Twitter manifested by nearly 200 users, 1,000 posts, and 1,000,000 views.

An important finding of this study is the identification of a clear need for nutritional education for providers. Most providers were not confident in advising...
patients on a kidney diet. By participating in the challenge, participants not only received and increased their education, but also felt more confident discussing kidney diets with patients. In future programs or research, it is important to expand on the scope of the knowledge assessment to ensure applicable information is being taught and retained. A recent study of individuals with CKD stages 3–5 demonstrated that nutritional knowledge did not necessarily correspond with kidney dietary adherence (8). Furthermore, food insecurity may further complicate dietary adherence to following a kidney diet (9). It is estimated that one quarter of adults with advanced CKD in the United States have food insecurity (10). Food-insecure individuals may not have the ability to choose healthier foods due to food deserts, costs, and so on (9). These findings are not to illustrate the unimportance of nutrition education. However, applicable education and behavior change, and efforts to improve food security, are needed to effect actual dietary change. Hence, educating providers and increasing their confidence to provide education may result in positive behavior change in patients.

It should be noted that the completion rate of the current challenge was very low (only 26%). The authors conclude this may have been due to the global pandemic and the early academic period in which trainees are still adjusting to a new environment because the challenge occurred in August 2020. It remains to be seen whether offering the Kidney Diet Challenge several times per year or near the end of the academic year will improve the completion rate. Nonetheless, the participants completing the trial reported a satisfactory experience and improved nutritional knowledge.

Fortunately, dietary advice for people with kidney disease is getting easier by some metrics. Providers and patients can connect and engage through social media. The current study demonstrates that not only dietitians, but also physicians and other providers, can guide or support patients through the kidney diet. Doing so can be fun and engaging as it makes providers walk a mile in their patients’ shoes.

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Author Contributions
J. Kendrick was responsible for supervision. Both authors conceptualized the article, wrote the original draft of the manuscript, and reviewed and edited the manuscript.

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