DOI: 10.12957/demetra.2016.16103

Food practices of people with CKD from the perspective of sufferers and their caregivers. A qualitative study in Mexico

Prácticas alimentarias de personas con ERC desde la perspectiva de quienes la padecen y sus cuidadores. Un estudio cualitativo en México

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Abstract

Objective: This study aims to determine the dietary practices of people suffering from chronic kidney disease from the perspective of sufferers and their caregivers. Methodology: A qualitative study was conducted with ethnographic approach in San Luis Potosi, Mexico. Focus groups and semi-structured interviews with 16 people with chronic kidney disease and 22 caregivers were performed. The thematic content analysis was performed. Results: The study participants reported having incorporated recommendations regarding the intake of salt, fat and sugar, as well as the amount of drinking water. However, adapting to the family diet prescribed regime and eating out are the main difficulties, especially attending the day of replacement therapies and medical consultations. The use and consumption of homemade or traditional remedies is a common practice among study participants, hoping to improve their health condition. Conclusions: The dietary practices of people with CKD who participated in the study did not match the prescribed dietary recommendations for the treatment of their disease. This may be associated mainly to economic difficulties, beliefs and customs. Further qualitative and participative studies that incorporate practices of the sufferers and their caregivers are needed to better understand the situations that interfere with the ingestion of an adequate diet of those suffering from chronic kidney disease.

Keywords: Renal Insufficiency Chronic. Diet. Qualitative Research. Food Habits.

Resumen

Objetivo: Conocer las prácticas alimentarias de personas que padecen la enfermedad renal crónica desde la perspectiva de quienes la padecen y sus cuidadores. Metodología: Se llevó a cabo un estudio cualitativo con acercamiento etnográfico en San Luis Potosí, México. Se formaron grupos focales, con los cuales se realizaron entrevistas semiestructuradas a 16 personas con enfermedad renal crónica y a 22 de sus cuidadores. Se realizó el análisis del contenido temático. Resultados: Los participantes del estudio señalaron haber incorporado recomendaciones con relación a la ingesta de sal, grasa y azúcar, así como a la cantidad de agua que beben. Sin embargo, adaptar el régimen prescrito a la dieta familiar y comer fuera de casa son las principales dificultades, sobre todo en los días en que acuden a las terapias sustitutivas o a consulta con el médico. El uso y consumo de remedios caseros o tradicionales es una práctica común entre los participantes del estudio, debido a la esperanza de mejorar su condición de salud. Conclusiones: Las prácticas alimentarias de las personas con ERC que participaron en el estudio no coinciden con las recomendaciones dietéticas prescritas para el tratamiento de su enfermedad. Eso puede asociarse principalmente a dificultades económicas, creencias y costumbres. Es necesario realizar más estudios de corte cualitativo y participativo que incorporen las experiencias y prácticas de los propios enfermos y sus cuidadores para comprender mejor las situaciones que interfieren en una adecuada alimentación de quienes padecen enfermedad renal crónica.

Palabras clave: Insuficiencia renal crónica. Dieta. Investigación Cualitativa. Hábitos Alimenticios.

Introduction

Chronic Kidney Disease (CKD) is one of the major public health issues in the world. And Mexico ranks second for the incidence of CKD, with approximately 425 cases per million population.[1,2] It has generated a great demand for human, economic, and infrastructure resources that involve health systems, people suffering from the disease and their families.

Renal disease is complex and requires multidisciplinary and comprehensive treatment. This treatment consists of three fundamental pillars: replacement therapy, pharmacological therapy and an adequate diet. The pillar of nutrition is often neglected or put aside, despite its importance in the treatment of kidney disease. Although the prescription of an adequate diet varies according

to the stage of the disease, it aims at avoiding the progression of kidney damage, restoring nutritional losses and preventing metabolic complications and malnutrition, which are frequent among patients with CKD.

It has been reported that maintaining a balanced diet for the management of kidney disease is not an easy task because it requires changes in lifestyle, which is unlikely to occur when nutritional intervention is based on a conventional and clinical system or when there is no access to healthcare personnel to give guidance on this subject.[3] It is well-known that if patients with CKD do not follow this diet, they may develop health complications such as fluid retention, hypertension, proteinuria, hyperkalemia, hyperphosphatemia, bone diseases and increased levels of urea and creatinine, alterations that aggravate their clinical condition and reduce quality of life and life expectancy.[4,5]

Despite the increasing number of studies that explore the social and cultural aspects of renal disease (Mercado-Martínez et al., 2014; Mercado-Martínez & Urias-Vázquez 2014), there has been little research on the relationship between nutrition, food and chronic kidney disease. For these reasons, the present work examines the experiences and practices of people with chronic kidney disease who are on hemodialysis, as well as their relatives', in regard to following a prescribed diet.

Materials and Methods

An ethnographic qualitative study was carried out during the period from January 2013 to August 2014, in a municipality bordering on the south of San Luis Potosí, Mexico. Participants were selected using a theoretical sampling.[6] Sixteen patients with chronic kidney disease undergoing hemodialysis, nine males and seven females, were included in the study, as well as 22 family members who acted as caregivers, among which 18 were females and 4 males. (See Tables 1 and 2).

Semi-structured interviews were conducted with the patients affected by kidney disease, whereas caregivers participated in focus groups as proposed by Morgan. The interviews were conducted at the participants' homes, and the focus groups at the headquarters of a civil association that supports people facing that health condition. Observation was also carried out in markets and establishments providing food to the public in the municipality and places near the hemodialysis units.

The interviews, focus groups and field notes were digitized, and the files generated were saved and coded for the exclusive use of the researchers. Transcription of interviews was performed by means of the Audio Transcription Software F4, and subsequently, all interviews were validated to substantiate the transcription quality and accuracy.

The analysis of conventional thematic content was carried out according to the model proposed by Hsieh and Shannon[7]. Codes and categories were directly obtained from interview transcripts and field notes, taking into account research questions and study objectives. To that end, an

extensive reading of the transcripts was carried out, which were later captured by means of the software Etnograph v.6, to begin the encoding process. The codes generated were registered in a matrix to facilitate the identification of relationships, organization of topics, creation of families and categories of related codes. Emerging codes and categories were constantly reviewed during the analytical procedure so that the initial code scheme was modified and, once a final scheme was obtained, the categories were defined.

The present study was submitted to the Research Ethics Committee of the Nursing Faculty (CEIFE) in San Luis Potosí, for which the guidelines of the Mexican General Health Law[8] and the statutes of the World Medical Association Declaration of Helsinki were considered for its elaboration.[9] Based on these declarations, the following registry was obtained: CEIFE-2013-062.

Results

The changes that patients suffering from CKD must make to adapt their nutrition to the diet recommended for their condition are completely different from the dietary practices they used to carry out. These differences range from restriction or increase of food intake due to its protein, potassium, phosphorus and sodium content, fluid restriction, methods of food preparation, adjustments in schedules and meal times, and even the purchase of food or supplements that are necessary to control the evolution of the disease. Seen in these terms, not only the person suffering from the disease, but also its main caregiver and even the rest of the family are affected.

The main findings about dietary practices and strategies that both patients with CKD and their caregivers have applied in an attempt to adapt themselves to the diet recommended are described below:

Restriction as the mainstay of the treatment

Chronic kidney disease, according to the participants of the present study, is experienced as a disease closely related to dietary restrictions, specifically in relation to fluids. Therefore, it is a constant to hear them report a sense of hunger and thirst because they are not satisfied with the quantities that are recommended or prescribed. In this aspect, both men and women agree upon this issue, whether young or old. One of them describes it as follows:

> *.....they restrict everything, milk, meat, eggs, also fruits and vegetables that have high amounts of potassium and phosphorus. They started to limit all these things; then I had too few options. That is the hardest thing... salt and water is what hurts me the most...*

A recurring aspect that emerges from the discourses of patients with chronic kidney disease and their relatives is the way they describe and refer to the prescribed diet. Those who participated in this study usually refer to a "piece of paper" or "slip of paper" when they mention the written prescription they received during the medical appointment. That is the expression used when referring to the standardized plan received after the appointment and that seems to be the only resource in which the professional who gives them nutritional care relies on. According to the interviewees, this form was only useful at the early stages of the disease; they generally put it aside due to of its complexity or because they do not understand the instructions. This is how one of the participants refers to it:

> *That little piece of paper they gave me [printed form of the prescribed diet]; yes, I read it but I did not understand. Let's suppose, this is the paper sheet and they only put small charts. No, to be true, I couldn't even understand them...*

Although most of them acknowledged the importance of the prescribed diet and agreed that diets were necessary for the management and control of their disease, including when referring to medical and nutritional terminology, they also concurred in the fact that they only followed the diet at the beginning of treatment. Patients also mentioned that, over time, they lost control and ate all kinds of food due to fatigue and weariness; or they decided not to follow the diet or not to strictly comply it, due to the costs it entailed. As another participant stressed out,

> *...I'm trying to adhere to the diet as much as possible. But, over time, I'll be honest, you get lost, you get lost and you end up consuming everything. Nowadays, I basically consume everything...*

Another change that participants mentioned is the reduction in the consumption of water in comparison to other fluids; most of them continue to consume soft drinks. Those who followed this restriction affirmed that they use graduated glasses and bottles or a specific amount to consume the quantity of fluids that is allowed. Some of them said:

> *…we have a glass with the accurate measurement, her baby says, "no, uncle, that's mine", because we give him in a baby's glass, we also get the right quantity in the water bottles...Caregiver. Int.05.*

Food preparation is another practice that changes when there is a person with CKD at home. Some caregivers mentioned that they cut sugar, salt and seasonings in their preparations, others have only reduced the amount that is added to food or definitely continued to cook using some of these ingredients indiscriminately. The following testimonies reveal that:

> *…I no longer use salt [H: nothing], not even by mistake, uh, no salt at all, I cook everything without using salt...Caregiver. Int. 07*

…I cook in a normal way, because he does not like salt-free foods…" Caregiver. Int. 11

Cooking without salt is one of the factors that most influence the taste of food and, therefore, the decision of the patient with CKD to eat it or not. In this situation, caregivers use substitutes for salt, butter, herbs and spices to improve palatability. A caregiver describes this practice:

…I do not use salt or consomate [food seasoning], not at all, only natural things, a sprig of marjoram, of parsley, cilantro, is what I use for cooking… Caregiver. Int. 10

…he told me "it's not that I do not like it that way [without salt]", not at all, "at least put some butter on it", and that's what I do, because I cannot add salt with garlic either, chicken broth, anything like that… Patient with CKD. Int. 07

Another measure adopted to prepare food is soaking legumes and meats before cooking them. This practice has been adopted according to the recommendation of the nutritionist, interviewees stated that this process is necessary to remove toxins from food, and the following statements reflect these changes in food preparation:

…if I give him beef steak, I put it to soak for half an hour in cold water, as well as the fish filet, the chicken, any type of meat I have to put to remove the toxins…" Caregiver. Int. 07

…we substitute meat for beans, but they also have a high phosphorus quantity, so we try to eliminate the first water, which is part of what the nutritionists recommend…" Caregiver. Int.06

Family adjustments related to diet when suffering from CKD

All patients with CKD who participated in this study live with their relatives, so the caregivers, who are usually the mother or spouse, are faced with the need to adjust the family diet to attend to the health needs of the person with the disease. This process is complex, since foods and preparation methods to which the family members must adhere are very different from those of the habitual diet.

There are several strategies through which family members become adapted to the food needs of the person with CKD. Most caregivers mentioned that they prepare different dishes, one for the family member with the disease and another for the rest of the family. This fact was mentioned by some caregivers:

…I always have to prepare her meals separately, and the lady who works here already knows that she [her daughter] is ill, and asks, "hey, they told me I should prepare this meal ¿what can I cook for you?"… Caregiver. Int. 06

Other families decide to prepare the same dish and only replace the ingredient to avoid by another that can be part of the diet of the person suffering from CKD, and give each family member the option of adding the foods that were not included.

Caregivers agreed that, as time goes by, assimilating these changes becomes easier and they end up getting used to not eating certain types of food. The change to which caregivers are more accustomed is avoiding salt consumption. Two caregivers talk about this change in their dietary habits:

> *…...no, because, overtime, we became accustomed to it. My children used to say, "Oh, it has no salt!" Well, there's no other way, it has to be like that, and they have accepted it… Caregiver. Int. 07*

However, sometimes family meals may lead the patient with CKD to face temptations, as they find on the table the foods that were prohibited.

Caregivers revealed that they avoid consuming, bringing to the table or buying food that their relative cannot eat, precisely to avoid temptation. Two caregivers talk about it:

> *…we opted at home. Because what they cannot eat, she [her sister] and I do not prepare it again and period, it's over, we do not tempt them. What they can eat is what we prepare… Caregiver. Gf. 05*

In other households, no adjustments have been made on the family diet, and thus it remains exactly the same for all members. A caregiver talks about eating at home:

> *…here at home, at mealtime, what we eat is also what he eats. Although he is ill, he eats like everyone else… Caregiver. Int. 10*

Dietary adjustments in parties and social events

Parties and social events are situations that threaten the maintenance of the diet of patients with CKD, since the foods that are usually offered may not be recommended for them. The interviewees mentioned that the typical dishes on these occasions are wedding stew, mole and barbecue. These dishes contain meat, usually pork, salt, sugar, a range of chilies, chocolate and spices, and are accompanied by soft drinks or beer.

Given such circumstances, they prefer to avoid eating at such events. The strategies they use in these cases include eating before going to the party, eating when they return home or only eating foods that do not cause distress, such as rice or tortilla. Some interviewees describe this situation:

…if it is a party and there is nothing I can eat, it is better to eat when I get home… Patient with CKD. Int. 06

…what I do is try to eat before [the event] and when I do not eat before, I try to eat rice or I fill myself with tortilla, but if there is salad, well, then I eat more salad or toast and I try to bring my water bottle… Patient with CKD. int. 12

Dietary habits of patients from Villa de Reyes with CKD

Dietary habits of patients with CKD are different throughout the week. This is due to the fact that they go to hemodialysis 2 to 3 times a week, which implies changes in the quantity and quality of their diet, considering that the number of days that they do not attend the hemodialysis session is greater, the starting point of the description will focus on the nondialysis days.

On an average day, the participants have 2 to 3 mealtimes. Only a few have snacks, and the amount of food that is included in each mealtime varies considerably. Grains are the main staple food of their diet, as they are consumed several times a day. Tortilla and potatoes are usually served for breakfast, lunch and dinner. Consumption of pasta soups and bread can occur in the 3 main mealtimes, rice is mainly found in dishes and tin bread is only used for breakfast and dinner. Sweetbread is regularly eaten for breakfast or dinner. It is common to include 2 to 3 types of cereals in a single mealtime, usually potatoes, rice and tortillas.

A high consumption of animal source foods is also observed. Egg and cheese are consumed daily and can be present in the 3 main mealtimes; chicken meat or beef are only eaten at lunch, with a greater consumption of chicken; milk is rarely consumed and generally at breakfast or dinner. A patient with CKD talks about his diet:

…I only eat chicken, but sometimes nothing more than once a week, two at the most. I have beans almost on a daily basis…" Patient with CKD. Int. 08

Among the foods from the legume diet group, only beans are consumed a daily basis, and can be found in the 3 mealtimes, usually combined with meat, soup and nopales. Fava beans or lentils are consumed less frequently, especially during the seasons in which their sales increase, as in the Holy Week. Only a young female patient with CKD revealed she eats soy.

Fats are consumed daily. Oil is the most commonly used and is present in the 3 mealtimes. Cream and mayonnaise are mainly served at breakfast and, occasionally, at dinner. Only two participants mentioned eating avocado, almonds or walnuts, but the latter two are usually mixed into the granola.

Vegetable intake is low. Tomato, lettuce, onion, chili, carrot, chayote and pumpkin are the most frequently included foods and are mainly found in salads, steamed or on a broth. Only one interviewee consumes vegetables in cream sauces. During breakfast, they are only present as a complement in cakes, sandwiches, quesadillas and, at dinner, are not consumed. A caregiver describes the vegetable consumption of her son, who suffers from CKD:

> *…because vegetables, like broccoli, pumpkin, chayote, he hardly eats… Caregiver. Int. 12*

Fruit consumption is very sporadic due to the high cost, as most respondents revealed. The apple rules as the most commonly consumed fruit. Other fruits such as melon or lemon are mainly consumed with water during the meals or the whole fruit as a snack. Homemade sweets and appetizers are poorly consumed. Soda is consumed almost on a daily basis and flavored soda is preferred to cola drink.

The day before and the day after the dialysis session, food intake may vary slightly. In the case of the first, most of them have a more free diet and include all types of food and even increase the amounts. On the day after hemodialysis, some participants mentioned that they begin to restrict the amount, type of food and beverage, especially when it is the last session of the week, thus they should spend 3 to 4 days without hemodialysis. Therefore, they control themselves and try to avoid distress and fluid retention until the next session. A patient with CKD describes this fact:

> *…for example, today, that I will not attend the dialysis session, neither tomorrow, I reduce, I start it, the fluids, everything… Patient with CKD. Int. 11*

Food intake on the day of dialysis session is often different from a regular day, the main difference between a normal day meal and the meal on the day of hemodialysis is that the patient eats out. Some of them take their own home cooked food and others buy it in places nearby. The number of meals varies according to the session schedules, although patients usually have 3 meals and a snack.

Some participants revealed that they skip breakfast. This is because they associate it with nausea and cramps during hemodialysis or simply due to the lack of time. Only one patient reported having full breakfast and a snack in the transfer, the others choose to eat only one fruit or some light food during transfer to the units, the following statements describe these practices:

> *…initially, at the beginning, before dialysis session, I used to have breakfast, but when I'm already there, I feel sick, and I'd better have something until leaving the session and at night I have a nice dinner… Patient with CKD. Int. 11*

> *…here he has a good breakfast and then, when we go back to San Luis, he eats again. I bring him cheese tacos and fruit…Caregiver. Int. 10*

Food intake after hemodialysis is an important aspect due to the distress caused by the procedure, which leads the patient with CKD to feel tired and hungry. Given this fact, some caregivers usually bring snacks, whether they have prepared them at home or bought in establishments near the hemodialysis units so the patients can eat immediately after the session,

> *…after hemodialysis he feels hungry, then I get his lunch ready when he leaves the session, sometimes I bring him two ham pies with some cheese, his avocado, like that, because he does not want anything else … Caregiver. Int. 14*

> *…because I buy him what's one can find near the clinic 50, sometimes I go to the food market and buy him a pie… Caregiver. Int. 09*

Others eat at food stalls located outside hospitals and hemodialysis units, within the city of San Luis Potosí, near the central station or on the way to Villa de Reyes:

> *…back in our way, I buy him gorditas or barbecue tacos in Pardo [town near Villa de Reyes]. There is a person who prepares them in a quite clean manner, then we get here and have dinner… Caregiver. Int. 09*

It should be noted that some respondents evaluate the establishments where they eat, especially in matters of food hygiene, and try to go to those places they know and approve. Unfortunately, most of them are far from hospitals and hemodialysis units, or patients and caregivers simply do not find any establishment that meet these requirements, so the patient leaves the session with nothing to eat until they arrive home in Villa de Reyes. This was described by some of them:

> *…he leaves hemodialysis and we go to have lunch with an aunt, who sells in the street market. I go there because I know she is my aunt and I know how she cooks, that she is clean, and sometimes when she is not there, we go straight home because I do not like to eat elsewhere.… Caregiver. Int. 13*

As mentioned above, the way back home is long, especially if they do not own a vehicle, giving patients with CKD the opportunity to snack while traveling home, which usually includes unhealthy options such as French fries, cookies, juices in box and soft drinks. A person with CKD talks about it:

> *… we come in a NSIFD van, and we arrive in Villa de Reyes and wait for a cab at the Flecha Amarilla bus stop [Yellow Arrow buses] and then we have some sabritas [industrialized potato chips], a juice [processed] or a very cold Sprite [soft drink] and we get there without feeling hungry… Patient with CKD. Int. 11*

Dinner is the only meal they make at home. Most of respondents mentioned that it is the largest meal of the day, although sometimes it is skipped due to food intake on the way back.

One of the peculiarities of eating on hemodialysis days is dining out. Due to the long periods they must spend in the capital and the commute time, this becomes a common practice among all study participants.

Establishments in the nearby area mainly offer cereal-based foods such as gorditas, tacos, pies, quesadillas, sopes or sandwiches for lunch or breakfast. In some places offer deli meals, like pasta or rice soup, or a bean and beef stew. Regarding fluids and beverages, the options include coffee or soft drinks.

The majority of interviewees revealed they avoid eating in such places because they consider that the foods are not adequate or simply out of habit, however they all do. In these cases, food selection is complex, since there are no establishments that fit their needs, the following statements highlight this aspect,

> *…it's difficult because you have to adapt to what they sell in that place at any given time, if you go to a restaurant they do not change the menu so you can have some food… Patient with CKD. Int. 07*

Due to the lack of options, interviewees must choose what to eat, even if the food they find does not comply with the recommendations, trying to choose the most appropriate, as the hemodialysis process makes them very hungry and prolonged fasting can lead to distress and immediate and long-term nutritional implications.

The use of alternative and traditional medicine

There are several branches of alternative medicine. During the research, participants reported using or receiving recommendations on herbal medicine, dietary supplements, vitamins and some functional foods for kidney detox, to eliminate kidney stones, treat anemia, avoid or stop hemodialysis and even cure the condition. It is caregivers who are more aware of this fact. The information is obtained from other caregivers, relatives, acquaintances, TV shows or directly from traders who sell these products, many of them near hospitals or hemodialysis units.

Recommendations on these products are always accompanied by successful experiences in which, according to those who recommend and found them useful, symptoms were reduced, their renal function recovered, the number of hemodialysis sessions decreased and, as some have even mentioned, the illness retreated. This experience was shared by one of the interviewees:

> *…I met a lady who recommended me the "palo azul" [Cyclolepis genistoides]. She used to take it and her kidney function recovered. The doctor was impressed because she really got better, she just had two hemodialysis sessions and the disease disappeared… Caregiver. Int. 14*

The use of herbal medicine was the most frequently mentioned. They referred to the "palo azul", field horsetail, corn silk, roselle and tree spinach, the first three to improve the kidney function and the last to control blood pressure. These herbs are used as tea or chewed fresh. The following statements reveal these practices,

> *…yes, my wife used to have the the palo azul tea when she had lunch, at mealtimes and before bedtime… Caregiver. Int. 03*

> *…I've already had the tree spinach to manage blood pressure. I have the tree there. I just go and rip off the leaves and chew them. I eat two or three leaves per week… Patient with CKD. Int. 10*

Among the supplements they mentioned and that were recommended and consumed, we found vitamines, omega 3, chlorophyll, Herbalife milkshakes and mead.

> *…now I have a bottle of chlorophyll and I'm taking it too, it is for kidney detox… Patient with CKD. Int. 10*

Among the functional foods, fruits and vegetables such as pineapple, lemon, aubergine and noni were mentioned. The first is used as a diuretic and the others for kidney detox and weight loss. In all cases, the food is not eaten whole, only the water in which it is boiled or soaked. These practices are described below:

> *… the pineapple peel and the core of the pineapple, I boil them together and drink it because it is diuretic…" Caregiver. Int. 10*

> *…I'm drinking eggplant water with the juice of two lemons. It helps eliminate blood toxins, which is what annoys us [affected patients]… Patient with CKD. Int. 08*

Finally, the consumption of field mice and mead to reduce anemia, one of the most frequent disorders among people with CKD, was mentioned. Here are some statements that describe this practice:

> *…I prepare for him a lot of "field mouse" to get rid of anemia. The field mouse is prepared in a chipotle-tomato sauce with pastry. My parents told me that, because it has a lot of vitamins… Caregiver. Int. 14*

In addition to these recommendations, the respondents mentioned that naturopathic doctors have prescribed specific diets according to their blood type or based on naturopathic drugs. In this regard, there is controversy, since some patients and caregivers affirmed that this type of diet, unlike the one provided by the nutritionist, contains the nutrients needed to control the disease, while others consider it inadequate and decide not to follow it when identifying contradictions

between both diets, particularly regarding foods that can or cannot be consumed, and foods they decided to quit eating, due to their own experience, as they may cause distress. Two interviewees talk about it:

> *…the naturopathic doctor gave me another type of diet. Those are naturopathic medicines, but accompanied by nutrients, because here [with the nutritionist] they give you a diet, but sometimes it doesn't have the nutrients you need and here [with the naturopathic doctor], it does… Patient with CKD. Int. 09*

> *…he gave me [the naturopathic doctor] a diet according to my blood type, but I did not follow it, because it was very inconsistent in fact, I mean, I could eat red meat 3 or 4 times, and I could eat banana and potato whenever I wanted. And here [with the nutritionist] they told me "do not eat too much meat", and I already knew that potato and the banana were bad for me due to the potassium… Patient with CKD. Int. 12*

The desire to register on a transplantation list was mentioned as one of the causes to avoid the consumption of herbs, teas and other remedies, since the participants fear that their intake may alter the results of the studies and affect this possibility. A patient with CKD talks about it:

> *…I didn't use them. Now I do not want to try any of them because I'm trying to register on the transplantation list and if I take something that alters the results of the laboratory examinations, I do not want all this to go down the tubes… Int. 07*

Discussion

The present study aimed at identifying the dietary practices of patients with CKD from a municipality of Mexico.

In general, none of the participants follow the prescribed diet for the management and treatment of the disease, but only some recommendations, among them, reducing the consumption of some foods and changing food preparation methods. In specialized literature, some studies focused on evaluating and researching the dietary intake of patients with CKD, whether on consumption of calories, macronutrients, vitamins and minerals and even additives,[10-14] nonetheless dietary practices of this population have not been properly explored.

The findings of this study corroborate those reported by some authors who explored the experience of people suffering from CKD, such as Walker et al.,[15] in whose study the respondents reported cutting down on salt intake, substituting it for sea salt or herbs, as well as introducing the use of fragrant herbs and butter to add flavor to the dishes. Moreover, the use of tables and diaries to improve dietary guidance was mentioned, while in the present study the use of graduated glasses and bottles to adjust fluid intake was reported.

Dietary practices on the day of replacement therapy are relevant findings. It has been reported that one of the greatest difficulties to follow a renal diet is the lack of adequate dietary options.[16] In this study, it was possible to identify the actions taken by the participants in this situation: most of them consume foods they have on hand, which are generally not recommended, such as processed foods and soft drinks, because of their high content of sodium, fat, sugars and lack of hygiene, especially when it comes to those sold in food stalls near hospitals and hemodialysis units.

The use of complementary treatments, herbal therapy and functional foods as alternative medicine has been previously reported. This practice is more common among people with chronic conditions. This is consistent with the above-mentioned studies on the frequent use of tea and herbal infusions.[17-19] Contrary to what was observed in other studies, not all respondents shared a positive view about their use, although this fact did not exempt them from using these elements at some moment.

Regarding the methodology used in this study, participatory observation in households allowed to reach a deep understanding of the dietary practices. This method is very useful to supplement the information obtained in 24-hour reminders or diaries used in the studies previously mentioned, especially with respect to food selection when buying and consuming, meal preparation, application of the knowledge acquired and following dietary recommendations. In this regard, it was possible to identify that the participants do not use scales or home measures, consequently there is not an adequate control of food consumption.

One of the limitations of this study is the lack of frequently used tools for the evaluation of dietary intake, such as 24-hour reminders, diaries or food frequency questionnaires, which would have strengthened the findings by supporting the notion, from a quantitative viewpoint, that dietary practices of the population evaluated are inconsistent with the recommendations, and even risky.

It should be noted that the inclusion of caregivers was able to enrich the findings, since they are involved almost in all of the practices related to the patients food intake.

Table 1. Sociodemographic characteristics of patients with CKD.

No.	Gender	Age	Marital status	Social security	Time with CKD	*KRT
1	M	19	Single	No	4 years	Hemodialysis
2	M	26	Open relationship	No	2 years	Hemodialysis
3	M	23	Open relationship	No	2 years	Hemodialysis
4	F	31	Married	No	2 years	Hemodialysis
5	F	40	Married	No	1 year	No
6	M	20	Single	No	6 months	Hemodialysis
7	F	30	Separated	Yes	10 years	No
8	M	50	Married	Yes	4 years	Peritoneal dialysis
9	F	34	Married	Yes	2 years	Peritoneal dialysis
10	M	26	Single	Yes	12 years	Hemodialysis
11	F	27	Married	Yes	2 years	No
12	M	65	Married	Yes	3 years	Hemodialysis
13	M	45	Married	Yes	12 years	Hemodialysis
14	F	26	Single	No	4 years	Hemodialysis
15	F	28	Single	No	4 years	Kidney transplant
16	M	50	Single	Yes	5 years	Kidney transplant

*Kidney Replacement Therapy

Table 2. Sociodemographic characteristics of caregivers.

No.	Gender	Age	Marital status	Social security	Occupation
1	M	55	Married	No	No
2	F	34	Married	No	Homemaker
3	F	60	Married	No	Homemaker
4	F	62	Married	No	Homemaker
5	F	24	Single	No	Trader
6	F	23	Open relationship	No	Trader
7	F	46	Widow	No	No
8	F	18	Open relationship	No	No
9	F	47	Married	Yes	Manager
10	M	50	Married	Yes	Lawyer
11	F	50	Married	Yes	Homemaker
12	M	45	Married	Yes	Pensioner
13	M	57	Married	Yes	No
14	F	47	Married	Yes	No
15	F	60	Married	Yes	No
16	F	63	Married	Yes	No
17	F	50	Single	Yes	Retired
18	F	52	Single	Yes	Retired
19	F	46	Married	Yes	Homemaker
20	F	40	Married	Yes	Homemaker
21	F	43	Married	Yes	Homemaker
22	F	44	Married	Yes	Secretary

Conclusions

It is necessary that nutritionists and other health professionals become interested in the dietary practices of the population suffering from Chronic Renal Disease, since they do not concur with the recommendations, which implies a greater incidence of complications and a reduction in the quality of life of those patients. At the same time, it is necessary to consider the context of poverty and social inequalities in which people with CKD and their caregivers subsist, thus one should identify to what extent these practices relate to economic difficulties, food insecurity, beliefs, tastes and habits of participants. In that sense, it is crucial to have a deep understanding of these practices for a more effective food guidance and to set out lines of action and research on that subject.

The use of the qualitative methodology, from a mainly ethnographic approach and participant observation, is considered a very useful tool for carrying out researches related to the identification of dietary practices and nutritional status of the population, in addition to the participation of caregivers, since the actors' viewpoint has been largely overlooked when discussing the issues concerning dietary habits of patients with CKD.

The present study aimed at describing and approaching dietary practices of patients with CKD. Therefore, one can affirm that these findings are preliminary, but they may be useful to promote discussion on the subject.

Acknowledgements

We would like to thank all the participants of this research, as well as the members of the "Asociación Villa de Reyes con ganas de vivir" A.C, for their supportive role in the identification of people suffering from CKD.

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Received: April16, 2015
Reviewed: October 09, 2015
Accepted: June 15, 2016