

# Renal health for all: educational intervention in older adults, a case of good practice

## Abstract

The educational intervention arises from the interest of preventing chronic kidney disease, considered as the public health problem of this century, due to the increase in incidence and prevalence, chronic kidney disease is a serious health problem that affects older adults. When presenting asymptotically, it leads to diagnosis in terminal stages, with high treatment costs and loss of quality of life in the elderly; however, an adequate educational intervention can reduce the incidence in cases of chronic kidney disease. In some cases, the disease is due to a lack of knowledge about prevention measures, which is why the educational intervention arises: renal health for all, which is developed in the primary care clinic of a town in Michoacán, Mexico.

Older adults come with their families once a week to receive training, being of vital importance to work together with their primary caregivers and thus strengthen the intervention when it is delivered to other age groups. Among the activities carried out, the active participation of older adults stands out by sharing their ideas, experiences and work done with other people, which keeps them active, happy and makes them feel important and useful. In a first evaluation, it was possible to identify that the intervention generated a significant impact on the change of behavior of healthy lifestyles, 34 older adults changed the consumption of sweet drinks for the consumption of simple water, 35 modified their diet, and they attend the physical activity session without missing. At the moment, it has been possible to verify the change in attitude, the increase in self-esteem, and the motivation to adopt nephroprotective measures.

**Keywords:** kidney health, nephroprotection, older adults, prevention, kidney disease

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**Jesus Alcantar Gonzalez**

Master in Hospital Administration, Secretary of Health of Mexico City, Mexico

**Correspondence:** MAH Jesus Alcantar González, Master in Hospital Administration, Secretary of Health of Mexico City, Mexico, Tel 4434794049, Email [alcantarjesus\\_96@outlook.com](mailto:alcantarjesus_96@outlook.com)

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## Introduction

It is incredible to think how Chronic Kidney Disease (CKD) has claimed the lives of thousands of people in the world every year. And how day by day the incidence and prevalence increase inconsiderably.

Some statistics described globally explain how CKD mortality has increased by 108% from 1990 to 2015.<sup>1</sup> The main cause of death in CKD patients in Mexico is diabetes mellitus, an impact on mortality that has progressed from being in place 19 due to diabetic nephropathy in 1990, to be the third cause of death in 2015, representing an increase of 670%.<sup>2</sup>

Another important piece of information regarding the number of patients with Chronic Kidney Disease (CKD) in the world who require: renal function replacement therapy (TSFR) by dialysis methods or kidney transplantation has gone from 430,000, in 1990, to more than 2 100,000 in 2015.

It is worth mentioning that only 25 years have elapsed for CKD to position itself as the public health problem of this century. Due to its human and social scope, the degree of disability it causes and its high costs, this disease has become a catastrophic disease.

It is important to define CKD as the progressive and irreversible loss of kidney function caused by various causes such as diabetic nephropathy, vascular, glomerular, tubulointerstitial, and cystic diseases, with diabetes mellitus and arterial hypertension being the two most common causes of kidney disease.<sup>3</sup>

CKD is classified into 5 stages, which is why the National Kidney Foundation (NKF) establishes glomerular filtration rate (GFR) as the gold standard for identifying kidney function.

Stage 1: GFR => 90 ml/min in the first stage it is necessary to modify the lifestyle since the objective is to delay the disease process.

Stage 2: GFR 60 to 89 ml/min during this stage it is important to modify factors and manipulate them.

Stage 3: GFR 30 to 59 ml/min, the patient must be referred to the nephrologist, anemia and bone-mineral alteration may occur. Likewise, nephrotoxic drugs should be avoided: NSAIDs, aminoglycoside antibiotics such as amikacin and iodinated contrast media.

Stage 4: GFR 15 and 29 ml/min the patient diagnosed in stage four is prepared for admission to renal function replacement therapy, it is the "pre-dialytic" stage.

Stage 5: GFR less than 15 ml/min is the most symptomatic stage, the patient enters renal function replacement therapy.

The problem is that it is a disease that involves expensive treatment to such a degree that people diagnosed prefer to give up. The concern is: What will happen to underserved communities when Chronic Kidney Disease comes into their lives? That is why the commitment for the well-being of the communities and population arises, I have always said that my greatest cause will be to prevent Chronic Kidney Disease or, in any case, improve the quality of life of the people who suffer from it, my wish is reach each person so that they understand the reality of the problem that this disease implies, the interest lies in communicating the message so that together with other health professionals we contribute to the prevention of this disease and above all work with the most vulnerable populations, applying medical ethics and humanism. It is time for a change, it is time to take on the great challenge that is presented, it is time to achieve the historic transformation in our health system.

Despite the increase in the incidence and prevalence of CKD, most patients in the early stages of chronic kidney disease (CKD) are not treated in a timely manner; therefore, they do not modify their lifestyles or receive nephroprotection measures early, and

consequently, CKD continues to increase. Therefore, directing care towards prevention (primary or secondary), instead of continuing to treat late complications of CKD, is an area of opportunity that should be exploited (especially in primary care).

### **From the above, the question arises: what is the health professional doing to prevent CKD?**

Every day in the care units, new cases of patients presenting with edema in the thoracic and pelvic limbs and arterial hypertension without any cause are presented. Unfortunately, when they are evaluated, they are diagnosed with stage 3 or 4 CKD, which is why they have to be referred to the specialty of Nephrology in order to monitor the disease and provide the best treatment to replace renal function, be it peritoneal dialysis, hemodialysis or renal transplantation, considering important aspects such as age and emergency needs, it is worth mentioning that each patient has different characteristics, so treatment must be personalized.

This disease would have been prevented if there was a culture of health in terms of health promotion and prevention aimed at strengthening healthy lifestyles such as diet, physical exercise and weight control.

How many times have you heard people say: “I have to die of something” or “we are all going to die” the population still does not understand the impact of being diagnosed with CKD, they do not understand that they will not die instantly but that they will be treated for invasive methods to achieve their survival.

### **The lifestyle is leading us to get sick, in later years there will be no budget for CKD**

For health professionals, it is a challenge to promote and prevent CKD through a culture of health that motivates the population to manage healthy habits, raise awareness among the population and make it clear that 4 minutes of listening is better than 4,000 units of erythropoietin.

The foregoing can be achieved through support networks among professionals willing to take on the great responsibility that it implies, likewise in the government invest more in the first level of care and create a public prevention policy.

From the above, the educational intervention arises: renal health for all, which is developed in the primary care clinic of a town in Michoacán, Mexico, with a group of 60 older adults with chronic degenerative diseases such as diabetes mellitus, arterial hypertension, obesity and dyslipidemia.

Older adults come with their families once a week to receive training, being of vital importance to work together with their primary caregivers and thus strengthen the intervention when it is delivered to other age groups. Among the activities carried out, the active participation of older adults stands out by sharing their ideas, experiences and work done with other people, which keeps them active, happy and makes them feel important and useful. In a first evaluation, it was possible to identify that the intervention generated a significant impact on the change of behavior of healthy lifestyles, 34 older adults changed the consumption of sweet drinks for the consumption of simple water, 35 modified their diet, They attend the physical activity session without missing. At the moment, it has been possible to verify the change in attitude, the increase in self-esteem, and the motivation to adopt nephroprotective measures.

### **Educational intervention: kidney health for all**

It is an intervention that makes it possible to measure the knowledge of the population regarding CKD, in such a way that it generates an impact and consequently the adoption of healthy lifestyles focused on nephroprotective measures. This intervention is divided into 6 sessions as mentioned below:

#### **First session:** Generalities of the CKD.

Objective: Mention statistical data and illustrate affected organs with images

Activity: Older adults will color drawings of affected organs and display them with their peers.

#### **Second session:** Risk factors and clinical manifestations of the disease.

Objective: Identify risk factors and clinical manifestations.

Activity: Older adults in a team with their relatives will list their current risk factors and explain what they would do to avoid the disease.

#### **Third session:** Prevention and control measures of CKD.

Objective: Explain the prevention and control measures of the disease.

Activity: Older adults will know the nephroprotective measures and explain how they would adhere to each one.

#### **Fourth session:** Healthy nutrition

Objective: To know the benefits of a healthy diet, taught by a professional in the area of nutrition.

Activity: healthy breakfast (coexistence).

#### **Fifth session:** Implement physical exercise.

Objective: Describe the advantages of daily physical exercise.

Activity: sessions of 30 minutes of daily physical exercise.

#### **Sixth session:** Importance of the general medical check-up

Objective: identify risk factors and modify behaviors.

Activities: older adults will undergo a complete medical evaluation, contemplating laboratory studies.

### **Assessment**

To measure knowledge and changes in lifestyle through a questionnaire. Make it clear that a medical check-up is essential in order to prevent CKD, carrying out a general urine test contributes 70% to the detection of renal alterations.

### **Media**

Currently CKD is an issue that causes various questions in the population and even communities do not know what it implies, therefore making use of the media (radio, TV, social networks) is an area of opportunity to communicate the impact of said disease.

Currently, it is necessary to invest in health programs in the media where the priority issue is CKD.

The important thing is to use all possible resources to stop the disease.

For Kidney Health for All!

Let's adopt healthy lifestyles!

Let's lead by example!

The challenge is for everyone!

## Conclusion

The educational intervention: renal health for all, is already a tool to contribute to the prevention of Chronic Kidney Disease, However, it is necessary to remember that more financial and human resources are needed to be able to implement this intervention in older adults around the world.

It must be remembered that prevention is very important, and more so when thinking about chronic degenerative diseases, it is essential to undergo routine medical evaluations, modify lifestyles and be managers of one's own health.

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## Conflicts of interest

There is no conflicts of interest.

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## References

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