



Journal of Nursing

Revista de Enfermagem

UFPE On Line

ISSN: 1981-8963

ORIGINAL ARTICLE

CHRONIC KIDNEY DISEASE PREVENTION: INTERVENTION IN ASSISTANCE PRACTICE IN A FAMILY HEALTH TEAM

PREVENÇÃO DA DOENÇA RENAL CRÔNICA: INTERVENÇÃO NA PRÁTICA ASSISTENCIAL EM UMA EQUIPE DE SAÚDE DA FAMÍLIA

PREVENCIÓN DE LA ENFERMEDADE RENAL: INTERVENCIÓN EN LA PRÁCTICA DE ASISTENCIA EN UN EQUIPO DE SALUD DE LA FAMILIA

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ABSTRACT

Objective: to identify priority issues regarding the prevention of chronic kidney disease (CKD); implement an action plan to address the identified problems and assess the actions taken together with research participants. **Method:** a qualitative approach based on action research, with a primary care health team, in which the nurse is inserted. In data collection, participant observation and semi-structured interviews were used with 11 professionals. Data analysis was done by means of qualitative analysis. **Results:** based on the priority issues listed in the categories: "Theoretical aspects about the prevention of CKD" and "Aspects of care practice about the prevention of CKD", an educational action was planned, implemented and evaluated using two strategies: educational booklet and dialogued lecture. **Conclusion:** the primary care health team has the potential to act in the prevention of CKD. It is essential to adopt strategies to equip these teams for preventive interventions of CKD. **Descriptors:** Renal Insufficiency, Chronic; Prevention And Control; Nursing; Health Education.

RESUMO

Objetivo: identificar os problemas prioritários em relação à prevenção da Doença Renal Crônica (DRC); implementar um plano de ação para solucionar os problemas identificados e avaliar as ações realizadas junto aos participantes da pesquisa. **Método:** abordagem metodológica qualitativa, baseada na pesquisa-ação, com uma equipe de saúde da atenção básica, na qual o enfermeiro se insere. Na coleta de dados, foram utilizadas a observação participante e a entrevista semiestruturada com 11 profissionais. A análise dos dados foi feita por meio da Análise de Conteúdo Temática. **Resultados:** baseando-se nos problemas prioritários elencados nas categorias "Aspectos teóricos acerca da prevenção da DRC" e "Aspectos da prática assistencial acerca da prevenção da DRC", uma ação educativa foi planejada, implementada e avaliada utilizando duas estratégias: cartilha educativa e aula expositiva dialogada. **Conclusão:** a equipe de saúde da atenção básica possui potencialidades para atuar na prevenção da DRC. É essencial adotar estratégias para instrumentalizar essas equipes para intervenções preventivas da DRC. **Descritores:** Insuficiência Renal Crônica; Prevenção & Controle; Enfermagem; Educação em Saúde

RESUMEN

Objetivo: Identificar los problemas prioritarios relacionados a la prevención de la enfermedad renal crónica (ERC); implementar un plan de acción para abordar los problemas identificados y evaluar las acciones realizadas junto a los participantes de la investigación. **Método:** enfoque cualitativo, basado en la investigación-acción, con un equipo de salud de atención primaria, en la que se insere la enfermera. En la coleta de datos, se utilizó la observación participante y entrevistas semiestructuradas con 11 profesionales. El análisis de datos se realizó mediante el análisis cualitativo. **Resultados:** en base a los problemas prioritarios enumerados en las categorías: "Aspectos teóricos sobre la prevención de la ERC" y "Aspectos de la práctica de la atención acerca de la prevención de la enfermedad renal crónica", se planeó una acción educativa, implementado y evaluado utilizando dos estrategias: folleto educativo y una clase expositiva dialogada. **Conclusión:** El equipo de salud de atención primaria tiene potencialidades para actuar en la prevención de la ERC. Es imprescindible adoptar estrategias para instrumentalizar a estos equipos para las intervenciones preventivas de ERC. **Descriptor:** Insuficiencia Renal Crónica; Prevención & Control; Enfermería; Educación en Salud.

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INTRODUCTION

According to the International Society of Nephrology, Chronic Kidney Disease (CKD) is characterized by functional renal abnormalities with implication for health for more than three months. It is recommended to estimate the glomerular filtration rate (GFR) from serum creatinine. GFR (mL / min / 1.73 m²) was divided into categories G1 (> 89), G2 (60-89), G3a (45-60), G3b (30-44), G4 (15-29) and G5 (<15).¹

In 2012, in Brazil 34,366 people started treatment in dialysis. That same year were totaled at 97,586 people in this therapeutic modality, concluding that the prevalence and incidence of dialysis patients increased compared to 2011.²

People with High Blood Pressure (HBP), diabetes mellitus (DM), cardiovascular disease (CVD), those with family members with CKD and elderly make up the so-called risk group for CKD. Obesity, dyslipidemia, smoking, among others are factors that can accelerate the progression of DRC.^{1,3} Knowledge of these risk groups is important in the prevention of CKD, as it allows the realization of individual and collective interventions to promote self-care and improve quality of life.⁴

Thus, early diagnosis, referral to impose measures to stop the progression of CKD are key measures to ensure optimal care for people with progressive loss of kidney function that can be implemented from primary care to a specialized team especially the interdisciplinary team.⁵

Aiming at the multiple nature of the risk factors involving this disease the inclusion of the Family Health Strategy (FHS) was proposed for the prevention of CKD. It is noteworthy that this prevention can occur at different levels, and, at the primary level, the actions can be performed exclusively by the FHS through the identification of risk groups for the disease and intervention in the risk factors. The actions of the secondary level can be performed jointly by the FHS and the nephrologist to slow the progression of CKD, identify and correct its complications and comorbidities. At the tertiary level, there is the identification and handling of the most frequent complications, almost exclusively carried out by nephrologists.⁶ Thus, the education and training of these professionals become priorities to be established to prevent CKD.⁷

Study of nurses working in Primary Health Care (PHC) has unveiled different degrees of knowledge about prevention and progression of CKD as well as, difficulties in implementing

the specific public protocols. The participants mentioned suggestions to improve this condition how to organize and prepare health workers for training in assistance to people at risk or with CKD.^{8,9}

The nurse stands out for the important assignment that they have as a professional caregiver and educator which makes them one of the main people responsible for systematizing the self-care of people, develop an educational approach in order to ensure the promotion of health and the clarification of the disease.¹⁰⁻¹

Thus, the need to invest in the organization and professional preparation for the development of this type of assistance should be emphasized. In this sense, the objectives of this study are:

- Identify the priority issues regarding the prevention of chronic kidney disease (CKD).
- Implement a plan of action to address the problems identified.
- Evaluate the actions taken together with research participants.

METHOD

A study extracted from a dissertation << Prevention of Chronic Kidney Disease: intervention in care practice in a Family Health Team >>, Ribeirão Preto School of Nursing, University of São Paulo, in 2012.

It used the qualitative methodological approach based on action research. This type of research is intended to make the participants aware of reality, identify problems, solve the problems identified by action, and produce knowledge.¹² Thus, action research is suitable for this work which sought create opportunities for participants to reflect on their work with people with CKD or those at risk of developing this disease.

The selection of participants was completed by intentionality, including a health team of PHC composed of 11 professionals, two doctors, a nurse, a nursing technician, a nursing assistant, five community health workers (CHWs) and an administrative agent acting in a Family Health Unit (FHU), located in the western part of the city of Ribeirão Preto / SP.

Data collection took place between May and July 2011. At first, the technique used was participant observation, being directed to the daily activities of the health team professionals: assistance in the unit, at home and/or in other community spaces. Concomitantly, semi-structured interviews were carried out, previously scheduled, as the availability of respondents and carried out in

the workplace. The statements were recorded, transcribed and validated by the participants.

The analysis of the data resulting from observations and interviews was done by a qualitative analysis of Minayo, consisting of pre-analysis, material exploration and treatment of results and interpretation¹³. Thus the thematic units related to the priority of the team problems emerged, which were categorized. To maintain the confidentiality of the participants they were assigned the solar system planets names in the identification and presentation of reports, namely: Ceres, Eris, Jupiter, Mars, Mercury, Neptune, Pluto, Saturn, Earth, Uranus and Venus.

From the priority issues listed in the categories, an educational action was planned, implemented and evaluated with the team using two strategies: development of an Educational Booklet and conducting a dialogued lecture, both entitled "Prevention of Chronic Kidney Disease."

This research was duly approved by the Ethics Committee of the Ribeirão Preto School of Nursing /University of São Paulo, under the protocol number 1273/2011, and followed the recommendations of Resolution 196/96. The health team professionals agreed to participate by signing the Instrument of Consent.

RESULTS AND DISCUSSION

First the sociodemographic, economic and professional profile was described, from the participants of this research. Then, stemming from the content analysis, the two categories are presented: *theoretical aspects about the prevention of CKD* and *aspects of care practice on the prevention of CKD*. The first category is divided into two subcategories: *the DRC settings and its prevention*; and *prevention of CKD and basic health care*. Similarly, the second category gives other two subcategories: *the daily work and the prevention of CKD*; and *direct interventions on the prevention of CKD*.

• Socio-demographic, economic and professional characterization of the health care team

The study included 11 health team professionals, mostly female, married and mean age of 43.9 years. With regard to the time of professional activity in the unit, there was a predominance of 45 months. The workload of the professionals was 40 hours per week. The average monthly income was about three minimum wages in effect.

The vocational training team showed that most studied until high school. However the graduate course was carried out by two professionals, one did *lato sensu* and *stricto sensu* and the other *Lato sensu*. The specialization in the nephrology area was not mentioned. Most participants reported that the frequency of their participation in scientific knowledge dissemination events in the last year was more than four times, but there was a diversity of the topics covered in these events. On the issue directly related to the CKD, only one participant noted "Nephrology". Three other participants made mention of SAH and DM subjects.

• Theoretical aspects about the prevention of CKD

♦ Definitions of CKD and its prevention

Composing the first subcategory, professional characteristics attributed to the CKD, as the following example:

All that's kidney related is what has no cure that is chronic. It's something that has no cure which is forever. (Jupiter)

The participants in this study recognized some aspects of CKD, although they did not define more specific features of GFR values associated with loss of renal function. Regarding the causes and risk factors of CKD most cited were SAH and DM. These same underlying diseases were also given emphasis on the prevention of CKD:

Prevention of kidney disease I think she's currently closely linked to the control of cardiovascular risk factors in general right. Because I believe that hypertension and diabetes are directly related as a cause of kidney disease so everything ... everything that resorts to prevention in hypertension and diabetes also ends up preventing kidney disease, I see that. (Mercury)

Another issue that was also highlighted in the reports regarding the definition of the disease and its prevention was the applicant association of CKD to its most advanced stage, many participants stressed the need for hemodialysis. Already the early stages of the disease have hardly been mentioned:

There are people who have the need to have ... To have some limits, are more delicate. And they have to have surgery to be able to prepare for hemodialysis, right ?. (Earth)

Participants are shown to be informed, to relate the CKD with the two main causes, SAH and DM. People with these diseases are the greatest affected by CKD, so should be investigated and treated early. The early stages of CKD are asymptomatic and, if treated early, can interfere with the development of renal involvement. The last

stage of this disease implies the indication of early RRT.¹⁴ So it is important that the health team recognizes all stages that the CKD can take which are amenable to preventive interventions and not just associate it with its most advanced stage when there is a need of renal replacement therapy.

In addition, practitioners of this study stated that there are gaps in dissemination of information on the CKD and understanding of the subject by the people and assisted by health professionals themselves:

I think that, the doctor asks for creatinine and urea only what is not said to the patient research ... I think it's a matter of disclosure. There is much talk of hypertension and diabetes, but renal failure [...] (Uranus). [...] Then we collect the examination, we guide the collection, preparation guides, but we do not know to what it is, you know. (Uranus)

Training, awareness and vigilance of professionals on primary care is important to carry out interventions to slow the progression of CKD and prevent complications through the diagnosis and referral premature.¹⁵

◆ Prevention of CKD and primary health care

This second sub-category covers the theoretical aspects of the prevention of CKD related to basic health care. The participants emphasized in their reports the relationship between the subject prevention of CKD and PHC:

So it has to be done right, I think it's a space where it is to speak of everything and it does not cost us to be oriented. Risk factors, prevention factors that it can be used is proper nutrition, annual examination, pressure measurement. I think it has to be right here right. (Neptune)

Survey participants also considered that the PHC acts on aspects of CKD across the board:

Primary care, I believe that it encompasses in general, because today they are more ... I do not have for the renal chronic patients, but encompasses the whole. (Earth)

The DRC has multiple risk factors so it needs an integrated and interdisciplinary approach, these skills are attributable to professionals working in the health services of PHC.⁶ Many preventive clinical activities are related to specific diseases, others are aimed at improving the ability to recovery against a variety of health threats, so there may be a generalized approach to the entire population, and selective, the chosen people, to investigate the risks¹⁶. According to a scholar, prevention is guided by the detection of actions, control and weakening of the risk factors of the disease. These are essential actions to be performed by the health team.¹⁷

We abstracts to this category the importance of reflecting on the theoretical aspects about the prevention of CKD and PHC. This does not imply having professionals working in these services as nephrology experts, however, can contribute to the prevention of CKD knowing and disseminating theoretical aspects such as risk factors, detection actions, control and prevention of the inserted disease in their professional competence in their own PHC.

The theoretical aspects about the prevention of CKD considered in this first category related to the understanding of the participants on the theoretical content, information and knowledge about CKD and its prevention. Some statements reported some difficulty with respect to the theoretical content searched beyond pertinent comments on the subject, demonstrating thus the staff's understanding of diversity:

Well, I did not have an explanation about it. I know it's because of the pressure that leads right to this chronic kidney disease only I do not exactly know, just explain to you. (Mars)

Participants had a diversity of understanding of the topic discussed. Such diversity was similar to the results of another study which found that nurses working in PHC had different levels of knowledge and action regarding the prevention and progression of CKD⁸. Thus it was concluded that there is a need for investments in the preparation of health teams to care for people at risk or with CKD.

◆ Aspects of care practice about the prevention of CKD

The daily work and prevention of CKD

This subcategory, highlights the importance of actions taken by the health team regarding their day to day and that were associated with the prevention of CKD. First, the guidelines that the team performs with people, encompassing a healthy lifestyle, participation in monitoring and clarification queries regarding the treatment and the person's kidney function:

We always prevent. Our job is to prevent [...] And so, we always do an orientation. Drink plenty of fluids, good food, always go in their routine queries, so any sign of abnormality speak to the doctor. (Jupiter)

PHC services in their daily lives more actively participate in the identification of risk groups for CKD, as well as performing preventive measures such as changes in lifestyle related to eating habits, physical activity, anti tobacco counseling.⁶ This may explain the reports made by the participants

of this research on team performance linked to guidance to people.

In addition to the guidelines, the health team also highlighted the concrete actions related to the prevention of CKD conducted during service. Among them, the host, home visits and assistance to hypertension and diabetes highlighting the HIPERDIA program. However, it was possible to perceive some difficulty in managing the care of these people with hypertension and DM when related to the prevention of CKD:

We prevent more these two [SAH and DM]. We hit the button with these two pathologies. In doing physical activity in taking care of yourself, avoiding sugar, avoiding ... But that was never spoken to us "Oh, we will work prevention of kidney disease." Never. "O all hypertensive patients, every diabetic will spend two years they can get one, how? renal disease. " It never has. (Earth)

A study in Brazil showed that the hypertensive and diabetic patients with CKD, only 34.4% of them had controlled blood pressure. Among diabetics, the glycemic level was, > 110 mg / dl in 67% of cases. The record of proteinuria dosage was found in only 24% of the records. There were no records of baking soda dosages of calcium and phosphorus or albumin, markers, respectively, metabolic acidosis, renal osteodystrophy and malnutrition own complications CKD.¹⁸ In addition, another study showed that patients with SAH had committed relationship with the primary care.¹⁹

In a study of adherence of hypertensive patients to drug and non-drug treatments, conducted in the city of Rio Preto / SP, it was found that, although the patients, 61.76%, have shown attending the consultations, there was no adherence to drug treatment, and 85.29% have at least a habit of life not considered healthy.¹⁹

Thus we observe that the lack of adherence to diabetes and hypertension treatments may contribute to the development of complications of these diseases, including the CKD. The health team participating in this research makes interventions with patients with diabetes and hypertension and thus, indirectly prevent the CKD, but also deal with difficulties when it comes to lack of adherence to treatment of patients.

◆ Direct interventions on the prevention of CKD

In this last subcategory are direct interventions on the prevention of CKD which are held at the facility. Some professionals cited laboratory tests that are ordered and that are related to the CKD:

In routine already asks for once a year urinalysis and will be watching, you have a risk factor ask the 24-hour proteinuria and is more a case, but you have to sometimes forget, because of the rush, but take a following ... what I ask is more fundus, biochemical, sometimes microalbuminuria when you have doubt, which is more sensitive. (Neptune)

Some actions, such as the evaluation of GFR was mentioned only once in the interviews. In practice observing this behavior was not observed by the researchers:

From the moment a person comes with an impaired renal function, we calculated right by creatinine clearance, we go for a more ... more direct approach. (Mercury)

Studies also emphasize that it is essential to investigate the GFR and albuminuria in these people and from this data the service can evolve, as the case for repeating or performing other tests, referral to a nephrologist or interruption of evaluation.¹

It is worth highlighting that the estimation of GFR can be performed even in the absence of symptoms in people who are in the early stages of CKD, to promote preventive actions. This requires a certain level of suspicion, especially for those with risk factors for CKD. The functional changes, especially in the GFR, are an important component in the diagnosis and classification of CKD.⁵

The importance of initiatives for the professional training became evident, a study proposed to evaluate the recognition of CKD by primary care physicians before and after educational intervention, addressing the use of GFR for detection of CKD. The prior recognition of 22.4% cases of the disease increased to 85.1% after the intervention. The highest percentage of under-diagnosis occurred in people in the early stages of the disease.²⁰

Regarding referrals to specialized services, practitioners demonstrated in their reports that the contact between PHC team with the assisted person may decrease due to referral to another health service:

It has different stages, right. If they're only treating chronic kidney problems it is no longer here in this unit. Here is a return unit. Usually these people are referred to special clinics. (Pluto)

It is important to note that in cases of referral to specialized services, contact the PHC team with such a person should not cease. Authors state that in the advanced stages of CKD, the person receives specialized treatment, and participation is almost exclusively the nephrologist, however, some interventions can be carried out in partnership

between health staff and nephrology primary care staff.⁶

In this second category are aspects of care practice of health staff related to the prevention of CKD. In the reports it was possible to note some difficulty with regard to the management of this disease and implementation of protocols by the health team:

Actually there is the protocol is that we end up not following in terms of updates ... you have to be aware of it and forward. What I do here: when I see that it is something more I ask to send. (Neptune)

There is the importance of addressing aspects of care practice regarding the prevention of CKD. A study highlights the importance of primary care professionals' responsibility in the first contact with people with CKD and the need for continuing education in order to ensure early detection through selective screening of persons belonging to the main risk groups. In addition, they found that referrals of these people at the secondary level have been conducted too late.²¹

Therefore, the analysis of the categories assisted in the identification of priority issues which, in turn, contributed to the development of educational action consists of two strategies: the development of the Educational Handbook and achievement of dialogue-based expository Class. The first developed as a way of concrete action so that it could remain as a daily reference tool for professionals, addressing aspects of renal physiology, risk factors, diagnosis, prevention and treatment of CKD with clear language and illustrations. In assessing the primer participants expressed satisfaction with the theoretical content, classifying it as enlightening, educational, easy to read, applicable to the daily life of the unit.

The dialogued-expositive class aimed to create a space for discussion and exchange of experience between staff and researchers, addressing the topics of the Educational Booklet. The evaluation of this strategy was positive, professionals actively participated in discussions evaluating the class as insightful, easy to understand ensuring learning. They also suggested that strategies were disclosed to other health units in the city.

This study sought to contribute some relevant aspects to improve the care for people with CKD or those at risk of developing it, through interaction with frontline professionals within the context of PHC, in which the nurse is part and performs essential functions such as educator. It is essential that

these teams are organized and prepared for the implementation of the measures related to the prevention of CKD.

CONCLUSION

The priority problems highlighted by the health team of primary care regarding prevention of CKD were identified through two main categories that emerged from the analysis of the reports of the participants as well, the analysis of participant observation.

As for the problems related to the theoretical aspects, the participants showed different levels of understanding of the CKD such as definition, causes, CKD risk factors as well as the laboratory tests for this disease. In addition, also highlighted the lack of disclosure and clarification on the matter both for the population and for the health professionals themselves. The last problem related to theoretical aspects was the applicant association carried out by professionals between the CKD and its more advanced stages.

For priority issues that emerged from the practicalities, there is the difficulty in daily work related to the management of the treatment of people with hypertension and diabetes and prevention of CKD. The lack of adherence to treatment, standardization of applications for laboratory tests related to the CKD as well as referrals to nephrology care were also identified as priority issues.

Intended to contribute to improving the prevention of CKD as well as assisting in the dissemination and spread of the issue through the implementation of the proposed plan of action was the main intention of this study, since the health team of primary care, which the nurse inserts has the potential to act in the prevention of CKD. In spite of the difficulties, it is essential that these teams are organized and have prepared to perform interventions related to the prevention of CKD.

FINANCING

Higher Education Personal Improvement Coordination - CAPES

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Submission: 2015/09/03

Accepted: 2016/06/10

Publishing: 2016/09/01

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J Nurs UFPE on line., Recife, 10(9):3361-8, Sept., 2016