



EFFECT OF CARE GUIDE ON COMPLIANCE WITH FLUID RESTRICTION AMONG PATIENTS UNDERGOING HEMODIALYSIS

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ABSTRACT

A quasi-experimental study was conducted to investigate the effect of care guide on compliance with fluid restriction among patients undergoing hemodialysis. The objectives of the study were to assess the level of compliance with fluid restriction by patients undergoing hemodialysis, to determine the effect of care guide on compliance with fluid restriction among patients undergoing hemodialysis and to determine the association between compliance with fluid restriction and selected physiological variables. The study was conducted among 45 samples and results showed that mean fluid intake value in the pre-test 1064.4 + 466.9 ml was decreased to 968.9 + 373.3 ml after giving care guide and found statistically significant ($P < 0.01$). The mean interdialytic weight gain in the pre-test 3.3 + 1.1 kg was decreased to the post test value of 3.0 + 1.0 kg after giving care guide and found statistically significant ($P < 0.001$). After the administration of care guide level of compliance of subjects improved from 28.9% to 53.3% and mean interdialytic weight gain was decreased from 3.3 kg to 3.0 kg. It was found that there was no significant association between level of fluid compliance and blood pressure. The study concluded that the educational interventions have a significant effect in improving the level of compliance, which reduces the complications and thus reducing morbidity and mortality related to chronic kidney disease.

KEYWORDS : Chronic kidney disease, care guide, compliance, hemodialysis, interdialytic weight gain

INTRODUCTION

Chronic kidney disease (CKD, end-stage renal disease, ESRD) is a progressive deterioration of renal function, which ends fatally in uremia (an excess of urea and other nitrogenous wastes in the blood) and its complications unless dialysis or kidney transplantation is performed. According to the National Kidney Foundation, approximately 20 million Americans have some type of chronic kidney disease. Most cases are asymptomatic until later stages.

The worldwide rise in the number of patients with chronic kidney disease (CKD) and consequent end-stage renal failure necessitating renal replacement therapy is threatening to reach epidemic proportions over the next decade. The progressive nature of chronic kidney disease and the ensuing end stage renal disease (ESRD) is putting a substantial burden on global health-care resources.

Currently about eight lakhs patients with terminal renal disease in India require dialysis and transplantation. The incidence of ESRD in India would be expected to be higher as poor socioeconomic status predisposes the population to a number of infection-related glomerulonephritis.

Historically, fluid management has been one of the most difficult challenges for chronic kidney disease patients and their care providers. The majority of patients report having excessive thirst. Though the literature suggest that between 10-42% patients can be considered as non-adherent with prescribed fluid restrictions, many patients report that fluid restriction is the hardest part of living with chronic kidney disease.

Positive attitude and increase compliance to therapeutic regimen decreases hospitalization. While patient must decide their own level of compliance nurses must strive to help the patient to achieve better outcomes. This can be done by providing patients with knowledge and encouragement so that they can make better choices

Statement of the problem

A study on the effect of care guide on compliance with fluid restriction among patients undergoing hemodialysis in a tertiary care hospital at Thiruvananthapuram district

METHODOLOGY

Research Approach: quantitative approach.

Research Design: quasi experimental one group pre-test post-test design

Variables

Dependent variable: compliance with fluid restriction among patients undergoing hemodialysis.

Independent variable: care guide

Care guide was in the form of a written pamphlet. It contained informations regarding kidneys and its functions, symptoms and causes of chronic kidney disease, informations about hemodialysis and its complications. It included recommendations for diet in patients undergoing hemodialysis and recommendations for fluid restriction. It also had tips on limiting fluids and controlling thirst and key messages for chronic kidney disease patients undergoing hemodialysis. It was given as a printed booklet material.

Setting of the study:

The setting chosen for the study was Sree Gokulam Medical College and Research Foundation, Venjaramoodu, Thiruvananthapuram.

Population:

patients with chronic kidney disease [CKD] undergoing hemodialysis.

Sample: A total of 45 subjects with CKD undergoing hemodialysis were selected based on inclusion criteria

Sampling technique: purposive sampling technique

Sample size: A total of 45 samples were selected for the study.

Sample selection criteria

Inclusion Criteria

The present study included the adults:-

- Patients with chronic kidney disease undergoing hemodialysis.
- Patients who are able to read & write.

Exclusion Criteria

- Patients with acute renal failure undergoing hemodialysis.
- Patients who are not willing to participate.

Tools And Techniques

- Socio demographic Performance
- Structured questionnaire
- 24 Hour recall method
- Weight measurement
- Blood pressure measurement
- Care guide
- Fluid diary

RESULTS

In this study nearly half of the subjects (35.6%) belonged to the age group of 51-60 years. About the male and female ratio, majority of the chronic kidney disease patients (68.9%) were males.

Compliance behavior assessment of samples

- Large majority of the subjects (84.4%) had hemodialysis treatment twice in a week, 11.1% of subjects received hemodialysis thrice in a week and only 4.4% of subjects had hemodialysis once in a week.
- Nearly half (46.7%) of subjects were accompanied by spouse to the dialysis centre.
- More than half of the subjects (53.3%) received advice regarding the importance of fluid restriction from a medical professional when they began their dialysis treatment. Only 6.7% of the subjects received advice during the previous week
- Majority of the subjects (93.3%) never skipped their dialysis treatment. 4.4% of the subjects skipped their dialysis treatment more than three times and 2.2% of the subjects skipped their dialysis treatment once. Among the dialysis skipped subjects 2.2% skipped because of financial constraints, another 2.2% of subjects skipped because they didn't have any difficulties during the period and another 2.2% of subjects skipped because a black magician advised them not to undergo dialysis.
- Among the subjects 37.8% used pickles, appalam or dry fish sometimes with their food.
- More than half (60%) of the subjects had taken food from home always during the previous week. 4.4% of the subjects had taken food sometimes from their home. Other times they took food from outside.
- Majority of the subjects (73.3%) received advice regarding salt restrictions from a medical professional when they began their dialysis treatment.
- Among the subjects, 8.9% felt food tasteless by salt restriction. 4.4% of the subjects were unable to control salt intake. Another 4.4% of the subjects didn't understand how to follow their salt restrictions.
- Among the subjects, 37.8% had no idea about their weight gain. 28.9% of the subjects gained weight 1-2 kilogram in between their two dialysis sessions. 11.1% of the subjects gained weight between 3-4 kg. Another 11.1% of the subjects gained weight more than 4 kilogram. 6.7% of the subjects gained weight in between 2-3 kilogram. Only 4.4% of subjects gained weight below 1 kilogram

Assessment of subjects based on the level of fluid compliance with prescribed fluid restriction

- In pre-test observations majority of the subjects (71.1%) had non-compliance with their prescribed fluid restriction and only 28.9% of the subjects had compliance with their prescribed fluid restriction. The post-test values showed that 53.3% of the subjects had compliance with their fluid

restriction and 46.7% of the subjects had non-compliance.

Assessment on effect of care guide on compliance with fluid restriction, interdialytic weight gain, systolic and diastolic blood pressure

- Mean fluid intake value in the pre-test was 1064.4 ± 466.9 which was decreased to 968.9 ± 373.3 after intervention. The difference in mean value was statistically significant ($P < 0.01$). It showed that care guide had significant effect in improving the compliance with fluid restriction among patients with chronic kidney disease (CKD) undergoing hemodialysis.
- The mean interdialytic weight gain in the pretest was 3.3 ± 1.1 kg which was decreased to the post test value of 3.0 ± 1.0 kg after giving care guide. The difference in mean value was statistically significant ($P < 0.001$). It shows that care guide had significant effect in reducing the interdialytic weight gain among patients with chronic kidney disease (CKD) undergoing hemodialysis.

Association between compliance with fluid restriction and selected physiological variables

- By doing X2 test, it was found that there was a significant association between compliance with fluid restriction and interdialytic weight gain as it was significant at 0.02 level ($P < 0.02$).

CONCLUSION:

The present study concluded that educational interventions will help to improve adherence to dietary and fluid recommendations. A care guide which describes the disease condition, complications, methods to reduce thirst and key ways to manage fluid intake helps the patient to comply with their fluid recommendations..

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