Team Care in Preparing Patients with Stage 4 Chronic Kidney Disease for Renal Replacement Therapy

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Problem. Chronic Kidney Disease (CKD) affects over 10 million Americans. More than half will progress to End-stage Renal Disease (ESRD) requiring Renal Replacement Therapy (RRT) for survival. Many will have hemodialysis which requires vascular access. More than 17% of health cost is attributed to vascular access complications. The preferred method of access is an arterio-venous fistula (AVF). Less than 29% of patients with ESRD enter hemodialysis with a mature AVF. Numerous empirical studies indicate low AVF rates may be due to lack of proper preparation of patients for renal replacement therapy.

Purpose. The purpose of this project was to test whether a team care approach to patient education will improve self-care knowledge related to RRT.

Evidence-based practice questions (EBPQ).
EBPQ1. Is there a significant difference in self-care knowledge of patients with stage 4 CKD following participation in a team care education program? EBPQ2. Is there a significant difference in choice of vascular access method of patients with stage 4 CKD following participation in a Team Care education program?

Methods. The study was conducted using a pre-experimental pre-test post-test design with a convenience sample. The intervention took place in a private nephrology practice. Participants included thirty practice patients with stage 4 CKD with eGFR <30 ml/min., over the age of 21 without exclusionary issues.

Outcomes. Preliminary results demonstrate that patients have increased self-care knowledge and choose AVF following participation in the team care program.

Significance. The effectiveness of team care for increasing self-care knowledge was tested. As a result, the percentage of patients choosing AVF for hemodialysis vascular access may be increased. The evidence-based patient care model may decrease complications and healthcare expenditures by enhancing self-care knowledge and quality of life outcomes. The model may be utilized in other nephrology practices and may be adaptable to other chronic illnesses.

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