

Addressing the Need for New Models of Care for Older Adults Receiving Long-term Dialysis



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The prevailing model of care for patients receiving long-term maintenance dialysis is organized around treating problems specific to kidney disease, maximizing treatment adherence, and achieving dialysis-related quality

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measures.¹ The goal of this care model is to reduce morbidity and extend life. This approach has many advantages, including standardizing care across dialysis centers and facilitating quality comparisons.^{2,3} However, for older adults, who represent a large proportion of those receiving dialysis, disease-based care also presents several challenges.⁴ Dialysis is associated with a high symptom burden and often requires patients to consider trade-offs between potential life extension and the possibility of receiving high-intensity health care.⁵⁻⁷ Although older patients are at risk for functional decline and nursing home placement,⁸ dialysis care does not specifically address loss of independence or social isolation and in some cases may contribute to these poor outcomes.

Although evidence-based models of care to improve function and support social participation are not widely available in dialysis, there are many examples of models of care developed in geriatrics and gerontology with this goal in mind.^{9,10} These models of care are characterized by the use of interprofessional teams, the understanding that age-related problems are multifactorial in cause, and the recognition that older adults value quality of life and maintaining function.¹¹ Care teams commonly include representation from nursing, social work, pharmacy, and physical and occupational therapy in addition to physicians. Although disease-specific care (eg, control of blood glucose levels in diabetes) may be one component of these models, careful attention is given to the personal and environmental contextual factors that contribute to functional decline.¹² Goals of care for these models include maintaining function, supporting independent living, and reducing hospitalizations, which commonly precede nursing home placement.

Examples of successful models of care include Acute Care of the Elderly (ACE) Units,¹³ which are designed to address challenges that older adults face while hospitalized; the Program for All-Inclusive Care for the Elderly (PACE),^{14,15} which provides an alternative to institutional care for high-risk older adults; and the Veterans Affairs' Home-Based Primary Care (HBPC) program,¹⁶ which has been shown to reduce hospitalizations in home-bound older adults. Models of care may be limited in duration, such as the ACE Units, which focus on

discrete inpatient admissions, or provide ongoing care, as in PACE or HBPC.

One innovative new model of care reported in the geriatrics literature is the Community Aging in Place, Advancing Better Living for Elders (CAPABLE) program.¹⁷ The CAPABLE model of care, initially funded by the Centers for Medicare & Medicaid Services Innovation Center, is a team-based intervention that includes an occupational therapist, registered nurse, and a handyman who perform home-based assessments. After standardized assessments, the team coordinates care to develop an individualized care plan that is based on the patient's personal priorities and goals. The handyman performs modest home repairs and modifications to support those goals (eg, installing grab bars, improving lighting, and raising toilet seats). The use of health care dollars to improve the home environment is one of the innovative aspects of the CAPABLE program. In a single-arm clinical trial with a comparison group, the CAPABLE program was shown to be associated with a significant improvement in physical function and a reduction in Medicaid spending driven by reduced need for inpatient and long-term services.^{17,18} Dissemination of the CAPABLE program has been shown to be associated with improved function, reduced falls, and fewer hospitalizations in pre-/posttrial analyses.¹⁹

As described in this issue of *Kidney Medicine*, Dr Crews, along with an interprofessional team, adapted and piloted the CAPABLE model of care for older adults receiving long-term maintenance dialysis. The goal of this new model of care, called Seniors Optimizing Community Integration to Advance Better Living With ESRD (SOCIABLE), is to improve both physical and social functioning. In the first step, focus groups of older-adult dialysis patients were convened to identify beliefs about what aspects of the program would be most helpful and what interventions would be acceptable. In a second step, investigators piloted the SOCIABLE program in a 2-group randomized trial with a waitlist control in 12 patients over a 5-month period. The program included the same components of CAPABLE described. The primary outcome was feasibility and acceptability and additional measures included physical functioning (basic and instrumental activities of daily living [ADLs, IADLs]), social networks, and social support conducted before and after the program.

Key themes identified by qualitative analysis of focus group transcripts revealed that patients care about living independently and describe fatigue as a major factor affecting their physical and social function. Participants viewed the opportunity to develop and work toward their

own health goals favorably. Findings from the intervention included improvements in function, social support, and social networks. Mean function improved about 2 points. For context, this change was on the order of going from reporting dependence (ie, needing help from another person) to reporting difficulty on 2 separate ADL questions or going from reporting dependence to having no difficulty on a single ADL question. Therefore, this level of improvement is likely to be clinically meaningful.

Adapting an existing model of care for patients receiving dialysis is innovative, and the current study suggests that this approach is feasible. Findings of improved function are exciting but should be interpreted with caution in the setting of a small pilot study. These findings are overall consistent with the CAPABLE program, in which more than 200 patients received the program. However, the improvement in function among dialysis patients was slightly larger.¹⁸ Thus, it is possible that these preliminary findings may overestimate the benefit of the program. Although investigators measuring function were masked to the treatment group, participants could not be masked to receipt of the SOCIABLE intervention versus waitlist to receive the SOCIABLE intervention. Because the intervention included home repairs and modifications, it is possible that participants appreciated the intervention and social desirability bias may exist.

Additional consideration to the outcome measures may also be important for understanding the potential value of this model of care. ADLs are no doubt an important patient-reported outcome, but a larger study to determine the impact of SOCIABLE on preventing institutionalization would provide additional important information. Other patient-reported outcomes, such as life-space mobility, may help clarify whether the improvements in social support and social networks were due to increased community mobility. Life-space mobility is defined as the distance, frequency, and need for assistance reported as older adults move to spaces beyond their bedrooms.²⁰ It is possible that participation in SOCIABLE supported an increase in life-space because repairs made leaving home safer and easier. Understanding the impact of the program on potential mediating factors, such as life-space mobility, would strengthen interpretations of a true treatment benefit.

For older adults receiving long-term maintenance dialysis, functional decline is likely to be a final common pathway for multiple medical, social, and environmental problems. Therefore, these patients may benefit from models of care that employ interprofessional teams and strive to identify and mitigate multiple factors contributing to disability. The SOCIABLE program, which requires patients to self-identify and work toward their own health goals, is a promising model of care for this population but will require larger scale evaluation before dissemination. As the developers of the CAPABLE study have previously described, a key challenge to dissemination will be obtaining buy-in from providers to focus on the patients' identified goals, not just the traditional disease

management goals.¹⁷ Improving care for older adults with complex problems such as kidney failure may ultimately depend on our ability to organize and finance care to address their health goals.

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