EDITORIAL AND COMMENT

Transforming Chronic Care for Older Adults: Guided Care and the Elusive Triple Aim

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Multimorbidity is ubiquitous in the geriatric population, with over half of older adults living with three or more chronic conditions.¹ The health care of the frail elderly with multiple medical conditions is complex, fragmented, and expensive. In response to deficiencies in provision of health care, the Centers for Medicare and Medicaid Services has implemented the “triple aim” of (1) improving individual health, (2) improving population health, and (3) decreasing health care costs. Several different models of chronic care management, including disease management and care coordination,^{2–6} have been developed to meet this aim. Unfortunately, the data from initial clinical trials and demonstration projects have yet to provide convincing evidence that any one model (with the possible exception of collaborative management of depression)^{7,8} can achieve all three goals.

In this issue of the *Journal of General Internal Medicine*, Boulton et al. present the results of a cluster-randomized controlled trial of one such model called Guided Care.⁹ The goal of Guided Care is to improve patients’ functional health and quality of care while reducing utilization of costly health services. Guided Care uses a practice-based team approach with one registered nurse assigned to 2–5 physicians, and follows 50–60 of the practice’s sickest (the highest quartile of “Hierarchical Condition Category” [HCC] score) patients over the age of 65. In the Guided Care model, patients receive nurse-directed care (in addition to physician primary care) including a comprehensive home assessment, an evidence-based care guide, monthly monitoring and coaching, coordination of care services, transition management services to aid in transitions of care, assistance with self-management, support and education for caregivers, and assistance with community resources. For this trial, 13,534 patients were assessed for eligibility and 904 were assigned to either the Guided Care group or Usual Care group, with 477 completing the final interview at 32 months.

Despite the sensibility and evidence base behind the Guided Care intervention, its effect on the three components of the “triple aim” were less than expected. There was no significant improvement in patients’ functional health, which was one of the study’s primary outcome measures. Quality of care, as measured by patient ratings was significantly higher in the Guided Care group. However, performance on quality indicators of specific care process was not measured in this study. Therefore, it is difficult to determine whether better perceptions of quality of care actually reflected better technical quality of care. In previous research, patients’ global ratings on health care were not associated with technical quality of care.¹⁰ Preliminary data presented from the initial 8 months of the study were promising, with a projected net savings of \$75,000 per nurse through reductions in hospital and skilled nursing facility days, fewer emergency room visits, and home health care episodes in the Guided Care group.¹¹ However, at 32 months, only home health care was significantly reduced. Although the results are at first glance disappointing, there are important lessons to be learned from this work.

While this study was meticulously conducted, several factors may have contributed to its apparent ineffectiveness. One factor may be the difference in the baseline infrastructure and fragmentation of care in some of the practice groups. Eight community-based primary care practices participated in this study with varied practice management styles: Kaiser Permanente (group-model managed care organization), Johns Hopkins Community Physicians (community-based practices), and Medstart Physician Partners (multi-site group practice). Notably, prior subgroup analysis had shown that Guided Care was significantly more effective in reducing the use of skilled nursing facility admissions and days in the Kaiser Permanente group when compared to the other practice models.¹² That study also showed a trend toward reduced hospital admissions, 30-day readmissions, hospital days, and emergency department visits, although this did not achieve statistical significance. It may be that a streamlined electronic medical records program, a health system that encompasses a complete array of health care services, and possibly a culture that emphasizes prevention and avoidance of unnecessary care, is more equipped to implement and reap the full benefits of the Guided Care model.

Some aspects of the study's execution may have also contributed to the findings. Despite the cluster randomization, the Guided Care group had a statistically significant higher mean HCC score at baseline. Sicker patients would have more difficulty maintaining health and functionality, and would be more likely to utilize expensive acute and post-acute care services. In addition, only 52.5 % of participants completed the final interview, and a higher percentage of those randomized to the control group were non-completers. These non-completers were older, had worse physical and mental health scores, were more likely to use health services heavily in the coming year, and were more likely to have functional impairments. The inability to capture data on these participants who might have the most to gain from Guided Care may have attenuated the possible differences between groups. Finally, the design choice to exclude patients who failed a brief cognitive screen and who did not have an identifiable proxy should be noted. It is often these patients who benefit from additional care coordination resources and oversight.

What conclusions can be drawn from this study? Although Guided Care is a sophisticated chronic care model, its effectiveness may have been limited by the infrastructure and practice culture differences of the health care systems in which it was tested. In other words, it may take more than just having a person responsible for coordination, case management, and evidence-based protocols. The environment in which this care is provided must be integrated and aligned. Undoubtedly, the developers and researchers have learned lessons that will help revise the model to be more effective. It is rare that an innovation works perfectly in its first iteration and health services researchers and implementation scientists should not give up too soon on good ideas. However, innovations will also need to respect the heterogeneity of health care delivery in the US for the foreseeable future, and recognize that it is unlikely that one model will work for all health systems. In addition, it is important to identify the problems that are inherent in testing such models of care, including the types of patients recruited and those that initiated but did not complete the study. While acknowledging these shortcomings, programs such as Guided Care appear promising, and should give us

insight as to the best way to achieve the common goal of improving quality of care for patients while reducing utilization of expensive health care services.

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