In an attempt to move the research forward on the use of interdisciplinary teams to improve health care, a group of physicians, Nazir et al., did a systematic review of interdisciplinary interventions in nursing home settings. The team defined interdisciplinary care as entailing at least 2 disciplines that rely on each other, participate in team activities, and share leadership to accomplish team goals. As noted, and in contrast to multidisciplinary or transdisciplinary approaches, an interdisciplinary approach to care assumes interaction among the different disciplines, or at least 2 disciplines. Moreover, the focus of interdisciplinary care is on group goals or effort. By definition, this type of care requires some level of communication among the team members.

The authors provide some background materials to support the effectiveness of teams across multiple settings, with most of this work being in the community and acute care. Despite limited evidence for the use and true efficacy of interdisciplinary care, this model of care is mandated on long-term care in Section 483 of the Code of Federal Regulations (483.20[k][2]). A reference by Hawes et al., published in 1997, is used to support the fact that there has been little physician involvement in long-term care teamwork. Thus, the review was conducted to focus on physician involvement and to study the impact of interdisciplinary interventions on health outcomes of nursing home residents and document aspects of successful interventions in terms of the 4 elements known to positively influence team process: leadership, communication, coordination, and conflict resolution.

To evaluate the studies, evidence of each successful aspect of team care was operationalized. Leadership was noted to be present when a formal leader was identified who clarified the team’s norms and expectations and communicated goals and expectations. Communication and/or coordination were present if there was a procedure for formal communication and coordination of tasks among the team members. Last, conflict management was noted to be present if there was a process for addressing disagreements among team members.

The review included 27 randomized controlled trials that tested a team approach to implementation of quality improvement programs or initiatives intended to improve clinical outcomes (eg, falls, use of restraints, appropriate medication use, depression). Once the team’s ability to effectively implement the intervention was established, Nazir et al. considered what types of team processes were occurring to facilitate the success of the implementation approach.

What was impressive from the review was that most of the team-based interventions resulted in positive clinical outcomes (67%), 7 (26%) were nonsignificant, and 2 (7%) had negative outcomes. The authors associated aspects of the team process, including leadership, communication, coordination, and conflict resolution, with success or lack of success in demonstrating outcomes (ie, a decrease in falls). It was concluded that having formal team meetings was associated with positive outcomes and lack of formal meetings with no change in clinical outcomes. Team communication and coordination among team members was also more likely than not to be present when the interventions were successful. Similarly, all of the trials that used team leadership as part of the intervention were noted to have positive outcomes. These associations were not statistically tested but assumed based on review and qualitative evaluation of the studies.

Prior Research on Barriers and Facilitators of Quality Improvement Projects

Prior research evaluating outcomes of quality improvement projects, such as implementation of clinical practice guidelines in long-term care settings, noted that there are many barriers to successful implementation. Barriers previously noted included such things as providers feeling forced to make clinical decisions based on a guideline or “checklist” versus use of clinical judgment, perceived conflict between the guideline and resident/family goals, lack of sufficient facility resources, lack of communication between caregivers, facility policies that conflicted with the new guidelines, national policies (eg, Health Insurance Portability and Accountability Act) making the implementation challenging, insufficient training, insufficient recognition and support of the staff, inadequate staffing, workload concerns, staff turnover, costs, lack of a champion, and lack of involvement of the facility leadership.

Outside of the 4 elements known to positively influence team process (team leadership, communication, coordination, and conflict resolution), Nazir et al. did not consider any of these known barriers. In addition, there was no consideration of other possible facilitators, such as building information into training materials or establishing standing orders for implementation of the quality improvement activities. It is possible, therefore, that the reason the projects were successful was because some of these additional barriers or facilitators were addressed and the implementation process was therefore successfully initiated and maintained. In fact, a 2010 review of the “know-do gap” in long-term care settings suggested that organizational factors are the most critical aspect of successful dissemination.
and implementation of new information and practice interventions in these settings.  

Theoretical Guidance for Quality Improvement Projects

The research team provided some empirical evidence to support their rationale for doing this study. They noted the benefit of teamwork in general and provided some support for the aspects of the team that facilitate success and also benefit the team members and setting (eg, less staff turnover and increased staff motivation). In addition, they noted that although there was limited evidence for the impact of the interdisciplinary team on clinical outcomes for residents, they delineated components or behaviors of the team that were necessary to facilitate positive clinical outcomes. They focused their review on these team aspects and did not consider how theory might have helped guide the assessment and interpretation of findings from the studies reviewed. The Social Ecological Model is a good example of a theory that might have helped to ensure a more comprehensive assessment of factors influencing clinical outcomes in long term care settings. The social ecological model provides an overarching framework for understanding the interrelationships among diverse personal and environmental factors in human health and illness and addresses interpersonal, interprofessional, environmental, and policy factors. There is increasing recognition that this type of multilevel perspective is needed to facilitate changes in current care philosophies and care practices, as has been done with regard to use of physical restraints and understanding caregivers’ expectations and care receivers’ competence.

In addition to consideration of social ecological models, to optimally disseminate and implement innovative interventions in real world settings, it is important to consider Dissemination of Innovation (DOI) theory. Dissemination focuses on the distribution of information and implementation is the process through which an innovation is communicated, over time through certain channels of a social system. The DOI theory provides guidance as to what will facilitate successful dissemination and implementation of new ideas, such as clinical practice guidelines or quality improvement interventions. DOI suggests that the following 4 key components influence dissemination and implementation: (1) attributes of the innovation: (a) relative advantage, or the degree to which the innovation is perceived to be better than prior care/activity; (b) compatibility, or the degree to which an innovation fits with existing values, experiences, and needs of adopters; (c) complexity, or the degree to which an innovation is perceived as difficult to understand and use; (d) trialability, or the ability to experiment with an intervention on a limited basis; and (e) observability, which is evidence of positive outcomes associated with the intervention; (2) communication through certain channels (eg, interpersonal, mass media); (3) timing of the intervention; and (4) the structure and impact of the social system (eg, the presence and influence of change agents, opinion leaders, and champions). These theories support the need to consider additional factors within the long term care setting beyond the interaction of the team and team process when evaluating implementation of quality improvement projects.

Treatment Fidelity

Another very important aspect of successful implementation, particularly when considering efficacy or outcomes of a quality improvement project, is evidence of treatment fidelity. Treatment fidelity is the assurance that the intervention was implemented as intended. Although the focus of treatment fidelity is commonly just assurance that the intervention was delivered as intended (eg, that all residents had a falls assessment done), consideration should also be given to receipt of the intervention (if an educational intervention was implemented did the individuals really learn the information) as well as enactment (were the fall prevention interventions recommended enacted daily in the real world setting). Assuming that the lack of efficacy of a quality improvement project is a result of team interactions, when in reality the problem may have been a result of lack of treatment fidelity, raises concerns. It is possible that team problems influenced treatment fidelity. However, it is just as possible that treatment fidelity was not achieved because of staffing issues, the physical environment, or lack of other resources.

Team Members

Another focus of this review was to consider the association between the members of the interdisciplinary team and success or lack of success of the intervention. Given that the research team/author group was compiled of physicians, there seemed to be strong bias on the impact of the physician in this process. Physicians were, in fact, involved in most of the trials (78%). Their involvement, however, was not always as a member of the team but also included receiving some type of education and/or receiving recommendations from the interdisciplinary team (eg, from a dietician, nurse, and physical therapist related to weight reduction). As would be expected when the resident’s primary care provider was involved versus physician consultant involvement, the success rate of the quality improvement project was higher. What was not reported in these studies or by the research team as part of their review was how much time the physician actually spent at the facility and/or what his or her involvement as a team member entailed.

The specific impact of other members of the team was not noted in the text. A careful review of Table 1 suggested that nursing was involved in most of the interventions (n = 23; 85%), nursing assistants were involved in 13 (48%) of the interventions, pharmacists in 4 (9%), social work in 2 (7%), a dietician in 3 (11%), therapists (either occupational or physical) in 11 (41%), activities staff in 1 (4%), psychiatry in 5 (19%), a nursing home administrator in 2 (7%), a psychologist in 2 (7%), and an optician and podiatrist each in 1 (4%) of the interventions. Given that most of the interventions were focused on clinical problems driven by medical management, such as decreasing the number of prescriptions, decreasing use of antipsychotics, and decreasing use of antibiotics, it was not surprising that medicine and nursing were strongly involved. It was, however, interesting to note that neither the resident nor the family was included as a member of the team or that activities staff were involved in only one intervention. The lack of activities staff was particularly alarming given the important role that these individuals can play in decreasing symptomatic behaviors associated with dementia, improving mood of residents, and even potentially engaging residents in group and supervised activities during the day, which can prevent falls from happening during unsupervised periods. Likewise, the lack of involvement of administration with the nursing home administrator a team member in only 2 of the interventions was surprising. This is especially true given that prior research has noted that leadership involvement is critical to the success of any intervention.

Despite the concerns raised, the findings from this study certainly support prior research demonstrating that interdisciplinary team work is effective and a team leader, more commonly referred to as a champion, of any quality improvement project is critical to successful implementation. Likewise, effective communication between members of the team working toward clinical outcomes is essential. Hopefully, we can move beyond simply looking at whether teams are effective to the more important work of how to make teamwork happen, how to build and implement teams so that they are efficient and do not duplicate care but instead use the...
strengths and knowledge of each team member to optimize care. Likewise, hopefully we can consider more than the team in the implementation of the quality improvement projects to focus further on such things as how to best disseminate and implement new philosophies of care and how to ensure treatment fidelity and long-term adherence to new approaches to care.

In addition to the benefits of teams, the findings from this study serve as an important reminder to the physician community, particularly those who are primary care physicians, to become engaged and stay engaged in care activities beyond the medical management of the patient. That is, their involvement in team processes that facilitate care and in team interactions is important to the overall care that residents receive. Communicating with other members of the team, teaching other members of the team, and serving as a role model are all important ways in which the physician community can facilitate success.

There are regulatory requirements that make visiting residents in nursing home settings mandatory for physicians. Those visits, however, are focused on primary care management. Future policy initiatives may need to consider reimbursable mechanisms so that physicians, and other health care providers, can realistically engage in team-based activities and quality improvement initiatives. Alternatively, initiatives that move from a fee-for-service approach to more bundled care services may also serve as important mechanisms to facilitate more team involvement in management of individual residents and care processes in these settings. System-based approaches through policy initiatives will be an important step in ensuring that quality improvement projects have more physician and team involvement. Ongoing work should also consider addressing the many other aspects of successful dissemination and implementation needed to improve quality of care in these settings.

References