Adult Day Service Providers: Untapped Potential for Care Coordination
Nicole Ruggiano, Ellen Brown, and Karen L. Fortuna

ABSTRACT

Adult Day Services (ADS) have become increasingly available for community-dwelling older adults who are often experiencing multiple chronic conditions and/or dementia. ADS providers spend a significant amount of time with their clients and offer the opportunity for a wealth of clinical information that can be used by primary care providers and specialists for decision-making about patient care. There are also opportunities for hospitals to coordinate care transitions with ADS providers by involving them with discharge planning with appropriate patients who require post-hospital care. However, ADS providers are often viewed as social service providers, and there is little known about the role they can and do play as part of clinical care coordination teams. This paper reviews the current state of practice, policy, and research on ADS providers and evaluates the benefits and challenges to increasing their involvement in the health care of older adults.

Keywords: adult day services, care coordination, older adults

THE GROWING ADS INDUSTRY

Adult day services (ADS; also referred to as adult day care) have emerged as an important sector of the long-term care system, providing on-going services for community-dwelling older adults with chronic care needs. Given the regular interactions they have with their clients, ADS providers may be a potentially rich source of patient-related information that can be used by primary care providers (PCPs) and other health care providers for clinical decision-making. However, very little has been discussed in the literature about the extent to which ADS providers should collaborate with health providers to coordinate care of older adults with complex chronic care needs. This paper initiates this dialogue by presenting the potential benefits and challenges of incorporating ADS providers in long-term care coordination for older adults, highlighting related policy, practice, and research implications.

More than 60% of older adults (aged 65 years and older) have at least two or more chronic health conditions (Ward, Schiller, & Goodman, 2012). Many older adults with chronic care needs utilize home and community-based (HCB) long-term care services to remain living in their homes and avoid nursing home care (Kane et al., 2013). In response, ADS centers have proliferated in the United States. These are non-residential facilities designed to provide therapeutic programs (e.g., health services, personal care) and respite for caregivers (Metlife Mature Market Institute, 2010). In 2014, a total of 4,800 ADS centers in the U.S. had the capacity of serving up to 289,400 individuals on a daily basis (Harris-Kojetin et al., 2016).

Among ADS participants, almost two-thirds are ages 65 or older (Harris-Kojetin et al., 2016) and most require ongoing chronic disease management due to one or more chronic conditions (Metlife Mature Market Institute, 2010). According to the Harris-Kojetin and colleagues (2016) predominant chronic health conditions among ADS participants include cardiovascular disease (44%), diabetes (30%), Alzheimer’s disease and other dementias (30%), and depression (25%). More than half of ADS center participants...
finance their services through Medicaid (Harris-Kojetin et al., 2016).

Research has demonstrated that ADS centers are more likely to serve minorities than other types of long-term care facilities, with 20.3% of participants being of Hispanic decent and 17.3% identifying as African American (Harris-Kojetin et al., 2016). However, other research suggests that ADS are underutilized across ethnic and racial communities uniformly, with one study finding that only a small proportion (19%) of caregivers that perceive a need for ADS for the older adult they provide care for actually use such services (Brown, Friedemann, & Mauro, 2014).

Research suggests that there are positive outcomes for participants of ADS centers, including improved psychosocial outcomes, reduction in problem behaviors, and delayed nursing home placement (Fields, Andersono, & Dabelko-Schoeny, 2014). In addition, caregivers of older adults who use ADS report better perceived health (Liu, Kim, & Zarit, 2015) and reduced stressors (Zarit, Kim, Fernia, Almeida, & Klein, 2014) than those whose care recipient does not.

**OPPORTUNITIES THROUGH COORDINATED CARE WITH ADS**

Multimorbidity increases the complexity of chronic disease management and therefore older adults may benefit from ongoing care coordination between HCB long-term care services and the primary care service systems. Care coordination is defined as “the deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient’s care to facilitate the appropriate delivery of healthcare services” (McDonald et al., 2007, para. 4). Care coordination is recognized as a health care quality indicator and is considered an essential strategy in the redesign of the health care system to improve the effectiveness and efficiency of the health care systems (Institute of Medicine, 2001).

The failure to coordinate care between providers can increase the risk of poor medical outcomes, hospitalizations, medication errors, and result in increased medical costs (Ruggiano et al., 2012; Snow et al., 2009; Katon, 2011; St. John, Tyas, Menec, & Tate, 2014; Schwappach, 2014). Care coordination has been examined in a number of home care settings (Eloranta, Welch, Arve, & Routasalo, 2010; Fairchild et al., 2002; Ruggiano et al., 2012), and studies report significant problems with coordinating care between in-home and primary care providers (Ruggiano et al., 2012; Fairchild et al., 2002). However, the status of care coordination within the rapidly growing community-based ADS centers is not known.

**CONTEXT OF ADS**

ADS providers may be ideal for inclusion of care coordination teams alongside hospitals and primary care settings. According to a national survey conducted by the Metlife Marketing Institute (2010), ADS providers are often trained to provide comprehensive health services – almost 80% of centers have a nurse (LPN/RN) on their staff, about half (48%) employ professional social workers, and 60% offer case management services. They also provide a number of therapeutic services, with some being disease specific and about half offering physical, occupational, or speech therapy.

In addition to the health-related services that ADS centers provide, ADS providers are ideal to include on care coordination teams, given the amount of time they spend with the older adults that they service. Eighty-one percent of ADS participants attend their facility on a full-day basis (defined as five or more hours per day), with 46% of participants attending their facility five days each week and an additional 19% attend three days per week (Metlife Marketing Institute, 2010). Further, participants typically attend an ADS center on a long-term basis. According to Silverstein, Wong, and Bruk’s (2010) study, ADS providers reported that 68% of their participants had attended their center for more than one year, with 17% attending for more than five years and 5% attending for more than ten years. Thus, ADS providers have significant opportunity to observe and collect a significant amount of health-related information that could be exchanged with PCPs and other members of care coordination teams. Specifically, they could collect and share information about ADS center participants that is relevant to their care transitions, follow-up on treatment plans, their ongoing or changing mental and physical health status, and their chronic disease management activities. In most states ADS centers that are licensed and/or Medicaid certified are already required to maintain some health-related information about the participants they service.

**OPPORTUNITIES FOR POST-HOSPITAL CARE TRANSITIONS**

ADS centers may particularly be appropriate for some patients who are transitioning to post-hospital care (Kane, 2011). ADS centers offer an added benefit of socialization to appropriate patients that they otherwise might not receive with in-home health care alone (Huded & Heitor, 2016). In Jones and colleagues’ (2011) study, patients discharging from the hospital were given the option of an ADS setting, a skilled nursing facility, home health care, or home with out-patient therapy. They found that when compared
to patients who discharged to all other settings, the ADS participants were significantly less likely to be readmitted to the hospital or visit the emergency department within 90 days following discharge. Hence, involving ADS providers with hospital discharge planning may be beneficial for certain patients, though the findings are promising, there is a dearth of research on transitional care with ADS and more studies are needed (Metlife Marketing Institute, 2010). However, given the demonstrated positive outcomes of ADS on participants, nurses and social workers involved in patient discharge planning should consider whether patients would benefit from the social and/or health services available through local ADS centers. For those deemed appropriate, discharge planning should include educating patients and their families on how such services could be beneficial for post-hospital care and communicate with local ADS providers during the discharge process (Foust, 2007; Nosbusch, Weiss, & Bobay, 2011).

CHALLENGES TO CARE COORDINATION WITH ADS

Lack of in-person communication. Research has demonstrated that care coordination is often compromised among providers across health settings (Bodenheimer, 2008). Currently, there is little research documenting the communication patterns between ADS providers and the physicians of their participants. However, studies in home health care have demonstrated that physicians often experience communication barriers with HCB service providers (Ruggiano et al., 2012; Fairchild et al., 2002). For instance, prior findings indicate that communication between physicians and home care nurses is inadequate, infrequent (Ruggiano et al., 2012), and unidirectional, where information comes from physicians to home care providers, with little information going to physicians (Eloranta et al., 2010). Recent findings suggest that the same situation applies to ADS providers (Brown, Fortuna, & Ruggiano, 2015).

Financial policies and coordination of care. Studies show that physicians often provide care to patients outside of the office visit (Farber, Siu, & Bloom, 2007). In Baron’s (2010) study, a primary care office with four full-time physicians who treated more than 8,400 patients in a single year, responded to more than 21,000 telephone calls (with only 6% of such calls involving other providers for the patient) and almost 15,500 emails that year. Medicare and Medicaid have traditionally used a fee-for-service model, which has offered little financial incentive for providers to engage in care coordination, since providers can bill for face-to-face visits with patients, but not for between-visit activities (Bodenheimer, 2008). However, beginning January 1, 2017 there were changes to Medicare policy that may affect providers’ financial incentive to coordinate care. Essentially, Medicare introduced new billing codes for clinicians who provide chronic or complex chronic management services not involving face-to-face visits with their eligible patients (Department of Health and Human Services, 2015). Patient eligibility includes having multiple chronic conditions including Alzheimer’s disease and other dementia, cardiovascular disease, diabetes, and depression. Interestingly, one of the services covered under this policy include care coordination with HCB services, such as “communication to and from home- and community-based providers regarding the patient’s psychosocial needs and functional deficits…” (Department of Health and Human Services, 2016, p. 6). While such financial reimbursement policy changes offer promise for increased coordination between PCPs and ADS centers, it is too early to examine its actual effects on care coordination for older adults.

Variation in quality of ADS centers. Another barrier to coordinating care with ADS providers is the significant variation in quality and services among ADS centers. Each state is responsible for oversight of ADS centers, which operate under different models that include: (1) a social model, which provides basic supervision of participants and activities that do not involve medical or personal care; (2) a medical or health model (which may or may not be combined with a social model), which offers health and/or medical services to participants; and/or (3) a specialized model which offers participants with specific conditions (often dementia) with specialized care for that condition (O’Keeffe, O’Keeffe, & Shrestha, 2014). In terms of regulation, as of 2014: 11 states did not require any licensure or certification; 26 states required ADS centers to have a license; ten states required ADS centers to be certified; and four states require both a license and certification (O’Keeffe et al., 2014). It’s important to note that in the 11 states without licensure requirements, there is a lack of regulation of centers that only serve private-pay participants and requires that centers that accept public funding be certified by funding agencies. Medicaid offers certifications for ADS centers and in 2014, 73.4% of ADS centers nationwide were Medicaid-certified (Harris-Kojetin et al., 2016). While many states emphasize the importance of care coordination in their regulation requirements, typically coordination is highlighted so to avoid duplication of services or continuum of care with providers offering more extensive forms of long-term care (Oregon Department of Human Services, 2007).

WAYS TO MOVE FORWARD:
ENCOURAGING CARE COORDINATION WITH ADS
The unprecedented number of older adults in need of long-term care services coupled with the level of complexity needed to manage multiple chronic health conditions and cognitive impairments (Harris-Kojetin et al., 2016) requires integrated service delivery systems. Therefore, care coordination between ADS providers and PCPs may be helpful in order to: maintain quality health services; address complications related to multimorbidity; and prevent or delay older adults from hospitalization, institutionalization, and/or acute services utilization. However, facilitating care coordination will require a number of efforts to overcome the barriers identified above.

EDUCATING PRIMARY CARE PROVIDERS ON ADS

Health care providers often play an important role in referring their patients to HCB services to support their aging in place. For instance, in Schoenberg, Campbell, & Johnson’s (2000) qualitative study, 41% of their small sample (N=115) reported that their physician played a role in their enrollment in HCB services, often through direct communication, referring, and/or providing information on services. In another small study of non-physician health care providers (nurse practitioners, social workers, etc.), Ploeg and colleagues (2016) found that providers often express the need for community-based care for older patients and their families, but that providers may be using out-of-date or insufficient information. A study by Yaffe, Orzech, and Barylak (2008) also found that physicians caring for older adults with dementia believed that their patients and caregivers would benefit from community-based supports but did not have enough knowledge about the services available. Hence, increasing coordination between primary care and ADS providers will require greater education and training for physicians and nurse practitioners on the role, scope, and availability of ADS centers within the community. Given the potential physical and mental health outcomes of ADS participants and their caregivers, PCPs may be more likely to coordinate with ADS centers if they better understand how they may go beyond basic supervision of their patients and potentially contribute to therapeutic goals. The same training and education efforts may increase PCPs’ understanding of the valuable source of clinical information that ADS providers may be regarding their patients.

PROMOTING HEALTH INFORMATION TECHNOLOGY (HIT) FOR ADS CENTERS

Another specific area where financial policies could increase care coordination is in HIT policies. Federal laws, such as the Health Information Technology for Economic and Clinical Health (HITECH) and Patient Protection and Affordable Care Acts (ACA), provide financial incentives for hospitals and physicians offices to establish HIT systems that facilitate meaningful use, which includes activities like care coordination. However, long-term care providers, such as ADS centers and other HCB services have been excluded from the financial incentives established by the federal government to increase development and use of such technologies (Ruggiano, Brown, Hristidis, & Page, 2013). Most ADS centers are required through state and/or Medicaid regulation to collect health-related information from their participants (O’Keeffe, et al., 2014). However, the types and amount of information required varies across states, and there is little knowledge on the extent to which records are required to be maintained electronically.

Including ADS centers in federal financial incentive programs could result in expansion of HIT adoption in ADS. As a result, recordkeeping practices and the sharing of records regarding ADS participants’ physical and mental health status could be improved. Such records could include important clinical information that is collected and managed by nurses and social workers between primary care visits, including: medication adherence; treatment plan adherence; changes to mood, behavior, and/or memory; home/community environment (if ADS participant is regularly picked up and transported from their home to the ADS center); and changes in family status and support. Expanded use of HIT could potentially help the ADS industry standardize the health-related information it collects from participants, improve the quality of data, and make it easier for ADS providers to share information with primary care providers and hospitals.

INCREASING REGULATION AND STANDARDS OF ADS CENTERS

Given that most ADS centers are subject to government oversight through licensing and certification requirements, hire qualified nursing and social work staff, and offer health and/or social services that aim to improve the quality of life of older adults who are nursing home eligible (Harris-Kojetin et al., 2016; O’Keefe et al., 2014). However, standards for ADS centers vary across states and across ADS models, with a sizable proportion of ADS centers nationwide free from any oversight. Also, while many states require qualified nurses and social workers to be employed by ADS centers, the extent to which such professionals are involved with participants, as opposed to unlicensed personnel, may be small (Harris-Kojetin et al., 2016).
As a result of varied quality in centers, primary care and other health providers may be unclear about the benefits of coordinating care among individual centers. Greater consistency in the regulation of staffing, service delivery, and record keeping, PCPs may greatly improve the quality of care received through ADS centers. However, such changes could also make ADS centers more reliable as sources of clinical information for health providers while also increasing the chances that the therapeutic goals established by primary care providers can be addressed within HCB settings for their patients. In addition, greater emphasis on care coordination for ADS centers by state and federal agencies would also increase the role that they play in the health care of older adults.

DIRECTIONS FOR FUTURE RESEARCH

While limited research exists on the actual communication and collaboration patterns between primary care and ADS providers, the small amount of available studies suggest that there is little care coordination occurring across these health and human service settings. More research is needed to document the existing needs and resources among these providers for collecting and sharing information. At a minimum, more knowledge is needed about how primary care providers view potential collaborations with ADS providers. Given recent changes to Medicare reimbursement policies that promote such collaborations, specific attention should be given to how physicians view the potential for coordination with ADS settings to: (1) improve clinical decision making, (2) delay institutionalization, and (3) facilitate better care transitions for older adults with chronic conditions (Fields, Anderson, & Dabelko-Schoeny, 2014; Jones et al., 2011). With a better understanding of the existing state and needs for care coordination, interventions for improving care coordination can be developed and tested, with studies documenting their effect on the quality of care across settings as well as patient outcomes.

CONCLUSION

Although ADS centers currently provide daily services to close to three hundred thousand clients daily, there appears to be untapped potential for adult day care service providers to be integrated into care coordination and disease management programs. Existing research, practice, and policy suggest that by increasing coordination between ADS centers and physicians has the potential for delaying institutionalization and improving chronic care for older adults with chronic conditions. However, the steps needed to facilitate such efforts will require multi-system changes to the health care and home and community-based service industries. This will require further research and investment to develop innovative care delivery models and health technology to meet the needs of our growing disabled community based older adult population.

DECLARATION OF INTEREST

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

AUTHORS

Nicole Ruggiano, PhD, MSW. School of Social Work, University of Alabama, Tuscaloosa, AL, USA. Correspondence regarding this paper can be directed to: Dr. Nicole Ruggiano, Associate Professor, University of Alabama, School of Social Work, Tuscaloosa, AL, US / nruggiano@ua.edu.

Ellen Brown, EdD, MS, RN, FAAN. Nicole Wertheim College of Nursing and Health Sciences, Florida International University, Miami, FL, US.

Karen L. Fortuna, PhD, MSW. Dartmouth Centers for Health and Aging, Geisel School of Medicine, Hanover, NH, US.

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