# Response to National Institute on Aging's (NIA) RFI Regarding an Effectiveness Trial of a Multifactorial Fall Injuries Prevention Strategy for Non-Institutionalized Older Persons

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As the national association representing occupational therapy, the American Occupational Therapy Association (AOTA), a profession dedicated to maximizing independence and function for people across the lifespan, AOTA appreciates this opportunity to submit information to assist NIA and the Patient-Centered Outcomes Research Institute's (PCORI) initiatives to prevent fall injuries for non-institutionalized older persons. AOTA is eager to support NIA and PCORI's goal of improving care coordination to prevent fall injuries for older persons. The following response to the RFI reflects my thoughts as well as input gathered from members of the AOTA leadership team and several occupational therapists who are fall prevention researchers (see Contributors List at end).

• Recommendation 1: Support studies that utilize **interdisciplinary teams** that include occupational therapists in care and care coordination efforts.

<u>Justification</u>: Because falls are typically caused by diverse, interacting extrinsic (e.g., environmental) and intrinsic (e.g., impairments) risk factors, interdisciplinary teams are needed to identify and address fall risk factors for older adults with multimorbidity. The occupational therapist's expertise includes assessment of abilities and environmental factors, provision of specialized care, and coordination of care, which offers important insight, that might not be gained by primary care physicians operating with significant time constraints.

Occupational therapists' knowledge and skills in assessment of a patient's **environment and functional performance** can complement physicians' and other health professionals' skill sets. Physicians are typically not able to attend to contextual information, such as a patient's transportation needs or socio-economic situation (Weiner et al., 2010), which represents a barrier to providing effective patient-centered care. Occupational therapy practitioners are trained to: (1) develop goals collaboratively with patients, and with other health professionals; and (2) consider context, tasks, and personal factors in evaluation (AOTA, 2008).

Occupational therapists have expertise in working with frail older adults and people aging with disabilities (e.g., stroke, Parkinson's disease, Alzheimer's disease, multiple sclerosis) who are likely to be at high risk for falls. Occupational therapists' knowledge of these diseases, conditions and these particular disease processes can help provide added information for consideration of particular strategies to address falls. Also, occupational therapists are trained to consider cognitive impairments, visual deficits, physical limitations, and the patient's values and

preferences when they plan and implement interventions. This attention to diverse influences on performance capacity supports a central role for occupational therapy in fall prevention intervention efforts.

• Recommendation 2: Future RCTs examining **care coordination** efforts designed to support providers' use of fall prevention assessment and intervention strategies should include not only people aged ≥65, but also adults aging with disabilities.

<u>Justification</u>: Evidence suggests that people living with medical conditions such as multiple sclerosis (Peterson et al., 2008; Peterson et al., 2007; Nilsagärd et al., 2009), Parkinson's disease (Wood et al., 2002) and stroke (Macintosh et al., 2005; Schmid et al., 2009; Schmid et al., 2010) and Alzheimer's disease (Stark et al., 2013) are at high risk for falls and/or report fear of falling/compromised falls self-efficacy. Many studies on falls risk and interventions focus only on "healthy" or "community living adults, which skews the data. Research must be inclusive of those with disability, illness, injury or other condition as they may require different approaches. For instance, an individual with Parkinson's disease may not be able to participate adequately in a community based exercise program. Also, individuals in assisted living facilities should be targeted for development of appropriate intervention approaches.

• Recommendation 3: Investigations of **primary care models** to promote better identification of people at risk for falls and manage as well as intervene about fall risk factors are feasible and needed. Preventing falls, rather than treating the consequence of falls, is a significant public health priority. Outcomes of these new models should include recognition of the key role of fall prevention in keeping long term costs of care low (Wales et al., 2012). Consideration of how new opportunities afforded by the Medicare Annual Wellness Visit (AWV) to bring expertise of fall prevention into primary care is encouraged. The emerging role of occupational therapy in primary care and related models should be included to address issues such as chronic disease self-management, home safety, and daily functioning and participation.

<u>Justification</u>: An enhanced primary care model that involves general practitioners initiating a chronic disease self-management plan and occupational therapy and other health professionals implementing the plan has great potential (Mackenzie et al., 2013). In primary care, physicians and nurse practitioners could identify older adults at risk for falls and seamlessly initiate an appropriate, tailored fall prevention intervention. Incidence of falls should be a critical outcome on which these new service delivery systems are evaluated.

In addition, while the AWV does include review of incidence of falls and home safety, it is important to determine: (1) if referrals to appropriate services, such as occupational therapy, are being implemented; (2) that follow-up by the patient is completed; and (3) that these efforts are actually positively affecting fall incidence, fear of falling and related functional issues.

• Recommendation 4: Examine systems of care designed to link people at risk for falls or living with chronic illness to **self-management programs** led by occupational therapists

for effectiveness in preventing falls and addressing related concerns such as fear of falling.

<u>Justification</u>: The Chronic Disease Self-Management (CDSM) program (http://patienteducation.stanford.edu/programs/) and other self-management programs are intended to support older adults who curtail activity due to fear of falling. Programs to safely increase activity levels, such as Matter of Balance (http://www.mainehealth.org/mh\_body.cfm?id=7383) are widely available. Such programs are often available through Area Agencies on Aging (AAA). Occupational therapists have led efforts to apply self management principles and strategies to fall prevention efforts (Tennstedt et al., 1998; Espiritu, in press; Clemson et al., 2004; Finlayson et al., 2009) and their educational background, which supports expertise in group management and client-centered approaches to patient care make them highly effective facilitators of self-management programs offered through AAA's or other systems. Studies should be conducted of the value-added in terms of outcomes when such programs use occupational therapists as facilitators compared to other disciplines or volunteers.

• Recommendation 5: AOTA urges better alignment between Medicare coverage of occupational therapy services and fall prevention services.

<u>Justification</u>: Findings from the Assessing Care of Vulnerable Elders Study 2 (ACOVE-2) indicate that when screening processes are in place to identify older persons who have experienced a fall or fear of falling, and better quality of care for falls and urinary incontinence (process and outcome) is provided, better participation outcomes will result (Min et al., 2011). Participation outcomes are related to long term health and thus to overall health costs. The Centers for Disease Control funded a study of the coverage of Medicare for falls related activities by the American Occupational Therapy Association. The report was produced through various activities consulting with falls experts and is attached.

• Recommendation 6: AOTA urges NIA to include interventions involving **home modifications and activity adaptations** provided by occupational therapists in future overall research priorities to expand attention to falls prevention.

<u>Justification:</u> There is strong evidence to support home hazard removal (home modifications) delivered by occupational therapists is an effective fall prevention strategy (Gillespie et al., 2012). Therefore, future studies should include occupational therapy to address home modifications and activity adaptations as part of the multi-component approach for fall prevention. The NIA's REACH Trials for Alzheimer's disease are excellent examples of successful multi-component interventions that involve both home modifications and activity adaptations which addressed specifically Alzheimer's disease and within that, issues related to fall prevention.

• Recommendation 7: Studies examining the effectiveness of home modification interventions should involve occupational therapists.

<u>Justification</u>: The Cochrane review, Interventions for Preventing Falls in Older People Living in the Community, concludes that interventions to improve **home safety** are effective, especially in people at higher risk of falling and when implemented by occupational therapists (Gillespie et al., 2012). Conversely, when home modifications are provided by other disciplines, the intervention has not demonstrated effectiveness.

• Recommendation 8: **Discharge planning**, following ED visits, hospitalization in an acute care hospital, hospitalization in inpatient rehabilitation or subacute rehabilitation hospitals or a skilled nursing facility stay offers an **important opportunity** for coordination of care for the purpose of reducing fall risk.

<u>Justification</u>: Older adults transitioning from one setting to the next are at increased risk for falls. Education and training needs to occur prior to discharge from a hospital. Additionally, care coordination to support a pre-discharge occupational therapy home assessment should occur. Studies examining linkages between medical and community-based settings, and supporting communication and appropriate sharing of patient's medical records/use of electronic medical records are a high priority. Studies of appropriate discharge planning, with increased use of occupational therapy, are being pursued, largely outside of the United States (Wales et al., 2012).

In a study of 342 inpatients, those who did not receive a home assessment had an increased risk of falling 1 month post-discharge [odds ratio (OR) 2.6, CI 1.4-4.7, p = .03] (Johnston et al, 2010. Individuals with neurological and orthopedic trauma had higher risks of falling. For all diagnostic groups, except neurological, falls risk was mitigated by a home assessment provided by an occupational therapist. This study recommends that the decision for pre-discharge home assessments should consider diagnosis, falls risk, and level of functioning. Studies examining particular protocols, such as those involving a pre-discharge home assessment by an occupational therapist, should be conducted in clinical settings in the United States.

## **Older Persons' Perspectives**

Some frail older persons may be more willing to participate in a fall injuries-prevention program if it is conveniently offered in their usual environments (e.g., home, assisted living facility). The LiFE intervention (Clemson et al., 2012) is an example of a successful home based fall prevention program. Home based interventions also offer the added benefit of the opportunity for health care providers to attend to and address contextual factors influencing fall risk, and consequently have the potential to yield client- centered approaches to fall prevention.

Other older adults prefer community engagement to address fall prevention. Older adults have embraced the Matter of Balance program (a client-directed self-management program led by a trained facilitator). Matter of Balance is a community-based programs designed to support management of chronic disease (which often includes fall prevention efforts) and reduction of fall risk.

Greater understanding of strategies that can be used to motivate older adults to initiate and sustain fall prevention efforts is needed. Likewise, evidence regarding effective marketing and messaging (intended to bring people at risk for falls into clinical and community-based fall

prevention programs) are needed. Evidence suggests that concerns about falls are highly prevalent among older adults (Ziljstra et al., 2007) and other populations, such as people with MS (Peterson et al., 2007) and people who have had a stroke (Schmid et al., 2009). Further, many older adults are reluctant to share concerns about falls with health care providers. However, qualitative research highlights that even people with significant fall risk can actively engage in fall prevention behaviors with high levels of self-efficacy (Peterson et al., 2010).

Empowering older persons to self-manage their condition or disease for better health and participation is of value not only for themselves, but also for their families and the broader society. To facilitate their participation in society to the fullest extent, we need to offer easy access to culturally-sensitive *context-based interventions* that will improve falls self-efficacy and performance in everyday activities.

### **AOTA and Occupational Therapists' Perspectives**

The American Occupational Therapy Association (AOTA) lauds NIA and PCORI's efforts to reduce falls in non-institutionalized older persons. We appreciate this opportunity to share resources and expertise to improve the quality of lives of the elderly.

AOTA is willing to encourage and facilitate occupational therapists' participation in a multi-site trial of fall injuries prevention. The importance of identifying and disseminating strategies to coordinate care for the purpose of reducing falls among community-dwelling older adults and other community-dwelling individuals at risk for falls is recognized by the AOTA leadership. To facilitate development of fall prevention expertise in occupational therapy practitioners, AOTA will continue to disseminate evidence-based fall prevention resources and offer continuing education (CE) opportunities through existing AOTA-based CE departments and the annual national conference. AOTA would gladly disseminate new fall prevention resources to the 140,000 practitioners, researchers and students in the US, most of whom are required to participate in CE for licensure.

Precedent suggests that occupational therapy researchers will respond to the NIA-PICORI call for proposals with great interest. Occupational therapists have led or participated in clinical trials examining outcomes such as reduced falls or increased falls self-efficacy (e.g., Clemson, et al. 2012; Clemson et al., 2004; Tennstedt et al., 1998; Gitlin et al., 2006), collected outcomes data, and have a long history of interprofessional collaboration (Brandis, 1999). Occupational therapists have also been involved in studies examining the impact of novel systems changes undertaken to reduce falls among patients. For example, the Prevention of Falls in the Elderly Trial (PROFET) investigated the outcomes of an intervention (medical and occupational therapy assessment with referral if necessary) in 65-years or older patients who presented to an emergency department with a fall (Close et al., 1999). In conclusion, AOTA highly supports NIA and PCORI's plans for further studies of preventing falls in non-institutionalized older persons and recommends a multi-component approach to address a complex, high-priority, public health concern.

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