editorial

Falls, fear of falling and an aging planet

We live on a planet where the life expectancy of many of its people has risen dramatically since the mid-20th Century. A baby born in Japan in 1900 was expected to live only to age 50; now, the average age is 83 years (National Institute on Aging, 2011). As a result, the number of people over age 65 has exploded. In 2008, it was estimated at 506 million; by 2040, it will exceed 1 billion. And, as our longevity increases, the number of individuals in the 'oldest old' group (85 years+) increases dramatically. Globally, the size of this group is expected to increase by 350% by 2050; the number of individuals over 100 will increase by 1000%.

Our greater longevity brings with it many challenges. Among them are the range of health-related issues that beset older adults. One of these is the incidence of falls and the injuries that often result. In the US, approximately one-third of adults over 65 fall every year. One-third of those falls cause an injury severe enough to result in a doctor's or emergency room visit. Thousands of older adults die each year following a fall. Resulting health care costs in the US are in the billions. Unsurprisingly, attempts to find ways to reduce falls risk and the occurrence of falls have been extensive.

There are many things that increase falls risk in older adults, including poor balance, reduced muscular strength, polypharmacy, and a cluttered environment. Previous falls history also contributes to an increased risk. Not surprising is that many older adults are characterized by several of these risk factors simultaneously.

An area of increasing interest is the fear of falling (FOF). Individuals with a history of falls typically demonstrate elevated FOF, but, many older adults report this fear without ever having fallen (Cox & Williams, 2014, Zijlstra, van Haastregt, Ambergen, et al, 2009). A recent longitudinal study by Clemson and colleagues (Clemson, Kendig, Mackenzie &Browing, 2014) demonstrated that even a history of injurious falls did not reliably predict FOF or even occurrence of a future fall. There is evidence, however, that FOF may lead to activity restrictions, which, in turn may contribute to adverse social, psychological or physical health outcomes. Older adults with elevated FOF may restrict or curtail physical activities that they perceive place them at risk for a fall. Thus, their fears may inadvertently increase their falls risk through a cycle of detraining, and the accompanying declines in muscular strength and core balance (Cox & Williams, 2014).

Some recent interventions aimed at improving physical (balance, strength and mobility, for example)and psychological (self-confidence, perceptions of control) measures in older adults also have examined the impact on FOF. Can improved balance, strength or self-efficacy lead to decreases in fear? An intervention that focused on cognitive-behavioral aspects of FOF (Zijlstra, van Haastregt, et al, 2009) demonstrated that fear remained lower in the treatment group for over a year. Interestingly, this intervention included some low-intensity exercise and environmental modification 'assignments' (e.g., decluttering living spaces). Not surprisingly, adherence to the intervention decreased over time, but, FOF remained relatively low. These results seem to suggest that the psychological impact on FOF is robust, even in the face of decreased adherence to even low intensity exercise.

Some researchers (Alexander, Ulbrich, Raheia, &Channer, 1997) suggested that an element contributing to FOF may be apprehension about getting back *off* of the floor following a fall. We (Cox & Williams, 2014) recently completed an investigation where we examined the impact on FOF of teaching older adults to get up from the floor safely. Our participants were living independently in a retirement community and had relatively low levels of fear at baseline. They received training and practice on how to safely get off the floor. While generally standardized guidelines for rising were given to each person, instructions were tailored to individual needs. For example, most participants were given cues that focused on their dominant sides; participants with dominant side joint replacements or other physical limitations received modified cues, usually shifting rising strategies to their non-dominant side. Additional declines in fear were modest and not statistically significant following training. Changes trended toward lowered levels of fear, however, suggesting that teaching older adults about what to do following a fall might be an appropriate strategy for reducing their fear. Clearly, additional study is necessary with a group of elders who are more fearful at outset.

We live on a planet whose population is increasingly elderly. The challenges associated with an aging population can quickly overwhelm even the most robust health care system. This essay addresses only one of those challenges-falls and fear of falling. It describes some of the ways that we might address this issue to avoid some of the costs and the burdens presented by the injuries that accompany many falls. Research described briefly here illustrates that it doesn't take much: whether it is helping older adults to maintain even low levels of physical activity, changing their attitudes about fears or applying simple interventions. We must continue to find ways to encourage people of all ages to become physically active and to remain that way.

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