INTRODUCTION

A recent National Institute of Health and World Health Organization publication in 2011 reports that: “The number of people aged 65 or older is projected to grow from an estimated 524 million in 2010 to nearly 1.5 billion in 2050, with most of the increase in developing countries.” (p.2) This marks a major shift in the world’s population patterns, as the number of older people will be greater than the number of children worldwide [1]. It is estimated that 7% of young-older adults 65 to 79 years old and 20% of old-older adults 80 years old and older suffer from frailty, which is associated with sarcopenia, decreased physiological reserves, and stress intolerance all of which can lead to physical and cognitive decline [2]. Rockwood, et al. in 2005 have tested a frailty scale good that has good clinical applicability: “The CSHA Clinical Frailty Scale:

(1) Very fit — robust, active, energetic, well-motivated and fit; these people commonly exercise regularly and are in the most fit group for their age.

(2) Well — without active disease, but less fit than people in category 1.

(3) Well, with treated comorbid disease — disease symptoms are well controlled compared with those in category 4.

(4) Apparently vulnerable — although not frankly dependent, these people commonly complain of being “slowed up” or have disease symptoms.

(5) Mildly frail — with limited dependence on others for instrumental activities of daily living.

(6) Moderately frail — help is needed with both instrumental and non-instrumental activities of daily living.

(7) Severely frail — completely dependent on others for the activities of daily living, or terminally ill [3].

Therefore, addressing the many issues associated with frailty has the likelihood to improve the quality of life of potentially millions of frail older adults worldwide.

Moreover, older adults suffering from both frailty and dementia are at substantial risk for dependence, morbidity, hospitalization, nursing home placement, and mortality [4]. This is a significant global health concern given that by 2030 more than 23 million older adults will have some type of dementia and more than 3 million will suffer from frailty in the USA alone. While Alzheimer's disease International reports that by 2030 approximately 75.6 million people worldwide will have dementia. [5] Finding ways to slow the progression of physical and mental decline associated with frailty plus dementia is an important global health care priority.

The Challenge

Older frail adults with dementia are a diverse population with complex needs deriving from a wide range of physical and cognitive limitations. This presents several issues that need to be addressed to keep frail older adults with dementia functioning
at the highest level possible. First, it is vital to develop and test interventions that improve their physical functioning while delaying their cognitive decline. Second, frail older adults with cognitive impairments may be reluctant to engage in some types exercise behaviors because of their fatigue, weakness, limited physiological reserves, and/or cognitive limitations. Consequently, designing interventions that are both beneficial and acceptable to this population are necessary. To date we have had limited research focusing on the needs and preferences of this frail population with cognitive limitations. In fact, there are no definitive treatments for older frail adults with cognitive decline. Therefore, the challenges are threefold: (a) to identify and test which types of exercise best address the physical and cognitive limitations of frail older adults, (b) to find which type of exercise is best tolerated and accepted by older adults with frailty and cognitive decline, and (c) to find ways to motivate inactive, weak, limited physiological reserves, and fatigued frail older adults to engage in exercise and increased activity.

REFERENCES