

# A Matter of Balance: An Evidence-Based Falls Prevention Program

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## INTRODUCTION

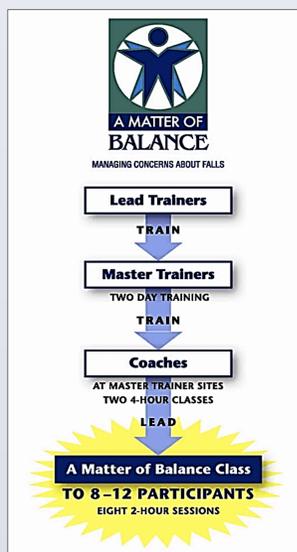
Among older adults, falls are the leading cause of death (CDC, 2012a). Each year, one third of adults will experience a fall (CDC, 2008). In 2010, the direct medical cost for falls was \$30 billion (CDC, 2013).

Approximately 50% of community-dwelling older adults report a fear of falling (FOF) (Zijlstra et al., 2007). Older adults often believe that limiting activity will reduce the risk of falls. Instead lack of physical activity can increase the risk of falling (Arizona Fall Prevention Coalition, 2010).

Falls are not a natural consequence of aging and most falls can be prevented (CDC, 2012b). The purpose of this poster is to: (a) introduce to the audiology community A Matter of Balance: Managing Concerns About Falls (MOB) program and (b) to describe its implementation at A. T. Still University (ATSU).

## A MATTER OF BALANCE Managing Concerns about Falls

- ❖ A Matter of Balance (MOB) is an evidence-based program focusing on multifaceted intervention of physical exercises and self-efficacy activities designed to reduce FOF
- ❖ This nationally recognized program was developed at the Roybal Center at Boston University in 2004
- ❖ The program is composed of eight two-hour sessions per week with small groups (8 to 12 participants) led by facilitators (coaches) who are trained by Master Trainers
- ❖ A Master Trainer receives two days of training and is responsible for teaching the MOB curriculum to coaches



- ❖ Currently, there are 500 Master Trainer Sites located in 38 states, the District of Columbia, and British Columbia, Canada
- ❖ The Center for Medicare and Medicaid Services (2013, pp. 62-66), in its report to Congress stated that the community-based MOB program demonstrated reduced healthcare costs because of
  - Reduction in unplanned hospitalization
  - Reduced skilled nursing facility and home health costs
  - Lower mortality rate among participants compared with matched controls

## A MATTER OF BALANCE

### Managing Concerns about Falls

#### WHO CAN BENEFIT

- ❖ Individuals concerned about falls
- ❖ Individuals who have sustained a fall in the past
- ❖ Individuals who restrict activity because of the fear of falling
- ❖ Individuals who want to improve flexibility, balance, and strength
- ❖ Individuals over 60 who are able to attend community classes

#### WHAT PARTICIPANTS LEARN

- ❖ To control falls and fear of falling
- ❖ To set realistic goals for increasing physical activity
- ❖ To change the environment to reduce fall risk factors
- ❖ To promote exercise to increase strength and balance

#### HOW DOES MOB WORK

- ❖ Group discussion
- ❖ Problem-solving
- ❖ Skill building
- ❖ Assertiveness training
- ❖ Exercise training
- ❖ Videos
- ❖ Sharing practical solutions
- ❖ Developing action plans

ATSU student and MOB participants exercising.



## ATSU AND MOB

In 2006, ATSU adopted MOB as a component of its University-Wide Aging Studies Project

The MOB program at ATSU recruits students as coaches from the audiology, athletic training, occupational therapy, physical therapy, physician assistant, and Doctor of Osteopathy programs

Student-led 8-week classes are held in community, recreation, and senior centers across the Phoenix metro area

The ATSU MOB program serves a culturally and linguistically diverse (CLD) population including the Hispanic, Chinese-American, Native-American, and Deaf communities

Since 2009, ATSU students have served about 2000 seniors across 30 sites and 14 municipalities in Arizona including:

- ❖ Phoenix, Tempe, Apache Junction, Fountain Hills, Sun City, Mesa, Gilbert, Scottsdale, Chandler, Glendale, Surprise, Deer Valley, Gila Bend, and Gila River Indian Reservation

The MOB program at ATSU has several *Community Partners* that invite MOB in and recruit participants. Our partners include:

- ❖ Banner Health
- ❖ City of Phoenix
- ❖ City of Scottsdale
- ❖ Dignity Health (St. Joseph's Hospital and Medical Center)
- ❖ East Valley Adult Resources
- ❖ Hometown America Communities
- ❖ Muhammad Ali Parkinson Center (Barrow Neurological Institute)
- ❖ Scan Health Plan Arizona

## ATSU AND MOB: THE CHALLENGES

MOB training occurs at off-campus community-based centers.

#### Early Challenges Included

- ❖ Access to the senior population
- ❖ Competing activities at community sites
- ❖ Student schedules/availability
- ❖ Student interest and motivation
- ❖ Faculty availability and interest to train as Master Trainers
- ❖ Faculty availability to supervise students at off-campus sites
- ❖ Concerns regarding student and participant liability



#### What We Learned

- ❖ Program development was slow: ~ 48 months
- ❖ The need to be flexible and up-front about the program
- ❖ Maintaining simple and consistent communication with everyone
  - Makes it easy for the site managers and target population
  - Reduces frustrations and increasing participation
- ❖ Need for more administrative staff; faculty cannot do it alone!!!

## AUDIOLOGY AND MOB

Currently, ATSU has 16 Master Trainers across disciplines; two in the Audiology program

All Audiology students are required to participate in the MOB Program

Two students lead the 8-week sessions, typically during their first or second year in the Audiology program

Recently, ATSU's audiology clinic was established as a MOB site. Audiology students (coaches) work with the MOB participants as part of their clinical rotation at the audiology clinic

Students also have an opportunity to participate in research associated with MOB



An ATSU audiology student presenting the "Still Standing" T-shirt to then Arizona Governor, Jan Brewer, in 2013.

## WHY MOB WORKS AT ATSU

- ❖ Commitment of the University and administration to the program
- ❖ The program addresses the concerns of the community
- ❖ It provides inter-generational training to future health professionals
- ❖ The program meets the *goals* of the ATSU's Aging Studies Project, which include
  - Focusing on in-class didactic education and community based service learning
  - Establishing collaborations with external entities
  - Implementing model programs that improve the quality of life for seniors

## PRELIMINARY RESEARCH RESULTS

Alexander et al. (2013), performed a study to compare MOB outcomes between a student-led model and a lay-leader model. The study sampled 73 MOB participants (mean age = 76.8 years) in the Arizona cohort and 176 MOB participants (mean age = 76.8 years) in the National cohort. Outcomes were based on

- ❖ Adherence
  - Attendance for ≥ 5 sessions
- ❖ Likert-scale questions regarding
  - Self-efficacy
  - Concern/fear of falling
  - Exercise frequency
- ❖ Preliminary results showed that a student-led model appeared as effective as the lay-leader model but further research is needed to fully understand the efficacy of the student-led model

In another study, Bordenave & Bordenave (2014) surveyed the influence of MOB on students coaches. Benefits to students included

- ❖ Enhanced understanding and awareness of aging issues
- ❖ Developing leadership skills
- ❖ Teaching an evidence-based program
- ❖ Working on an interdisciplinary team
- ❖ An appreciation of community-based research



Working with CLD populations. (A) An ASL interpreter signing to a class of Deaf seniors led by two audiology students and (B) MOB graduates at a Chinese-American Senior Center where the class was conducted in Mandarin.

## ONGOING MOB RESEARCH AT ATSU

- ❖ Alexander, J. L., Sartor-Glittenberg, C., Bordenave, E., & Bordenave, L. (in press). Effect of the Matter of Balance program on balance confidence in older adults. *J of Gerontopsychology & Geriatric Psychiatry*.
- ❖ Alexander, J. L., Bordenave, E., Dabrowski, T., & Hale, T. (2014). Effect of the A Matter of Balance Program on balance confidence in hearing impaired older adults. Unpublished raw data.
- ❖ Alexander, J. L., Sartor-Glittenberg, C., Bordenave, E., & Bordenave, L. (2014). *Effect of Matter of Balance on fear of falling and quality of life: A longitudinal study of community-dwelling older adults*. Data collection in progress.

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