The Otago Exercise Program: Implementation Strategies & Best Practices

Tiffany Shubert
Lavinia Goto
Dennis Klima

Improving the lives of 10 million older adults by 2020
Poll Question #1

- Who is joining us today?
  - Community Providers (Area Agency on Aging/Senior Centers)
  - Physical Therapists/Rehab Agencies
  - Other Health Care Professionals
  - Personal Trainers/Exercise Instructors
  - State Unit on Aging Staff
  - Federal/National Partner
Poll Question #2

- What is your experience with the Otago Exercise Program?
  - Brand new to the program
  - Have read about it, but never implemented
  - Experienced implementation
Presenters

• **Tiffany E. Shubert**, PT, PhD; Clinical Architect, Shubert Consulting

• **Lavinia Goto**, RN, CDE, MPH, MBA, DHA, Project Manager, Long Term Care Innovation, North West Senior Disability Services

• **Dennis Klima**, PT, PhD, DPT, GCS, NCS, University of Maryland Eastern Shore
Objectives

- Introduce the Otago Exercise Program
- Review the NCOA OEP Guidance Statement
- Present 2 implementation models
The Otago Exercise Program

The Otago Exercise Program Is…

• An exercise program
• It is not a structured behavior change program
The Otago Exercise Program

- Evidence-based fall prevention program from New Zealand
- Implemented in the home
  - 5 visits over 8 weeks
  - Follow up visits at 6 months and 1 year
  - Monthly phone calls when there is no face to face interaction
- Exercises
  - A series of warm up exercises
  - Up to 17 strength and balance exercises for 30 minutes/day, three times/week
  - Three exercises use ankle weights to provide added progressive resistance
  - A walking program done for up to 30 minutes/day, three times/week
Translation Challenges

- Developed and implemented in a small country with nationalized healthcare
- OEP in-home visits and phone calls not aligned with Medicare documentation and reimbursement policies and procedures
Guidance Statement

Otago Exercise Program Guidance Statement

The purpose of this document is to provide information and guidance regarding implementation of the Otago Exercise Program for U.S. Administration on Community Living falls prevention grantees and other community-based organizations implementing Otago.

Otago Exercise Program Overview and Original Research

The Otago Exercise Program (OEP) was developed and tested by Dr. John Campbell and Dr. Clare Robertson at the University of Otago, Otago, New Zealand. Implementation and dissemination of the program in New Zealand was studied in the mid-1990s, and proven to decrease falls and fall-related injuries in high-risk older adults by 49% (Robertson, Delahaye, & Campbell, 2001).

The OEP is considered to be one of the most appropriate fall prevention programs for older adults who are frail and may not be able to participate in a group-based program like Tai Chi. For this reason, the program was originally designed for delivery in the home by a physical therapist (PT).

Designed to continually challenge the participant’s strength and balance, the program consists of:

A series of warm-up exercises
■ 17 strength and balance exercises conducted in the home for 30 minutes/day, three times/week (three exercises use ankle weights to provide added resistance),
■ Exercises selected and progressed by a PT based on the participant’s abilities (the participant does NOT do all 17)
■ A walking program done for up to 30 minutes/day, three times/week,
■ Five PT participant visits over a period of 8 weeks,
■ Follow-up visits at 6 months and one year, and
■ Monthly phone calls during months there is no face to face interaction.

Guidance for the United States Version of the Otago Exercise Program

In 2010, the OEP was selected as one of four programs for dissemination by the Centers for Disease Control and Prevention in the United States. As part of the US dissemination project, several aspects of the OEP were modified to facilitate adoption and implementation of the program by healthcare providers and community-based organizations. These modifications do not in any way compromise the fidelity of the program.

The United States version of the OEP maintained the following elements:

A series of warm-up exercises,
■ Participate in a minimum of 5 sessions over 8 weeks with a provider of the OEP,
■ Select exercises from the 17 OEP exercises which challenge the participant’s strength and balance for up to 30 minutes, three times a week,
■ A walking program for up to 30 minutes, three times a week.

Outcomes from US Dissemination

(Shubert, M. L. Smith, L. Gold, L. Jiang and M. G. Ory, 2015; Shubert, T. E., M. L. Smith, L. Jiang and M. G. Ory, 2016)

■ Improvements in functional outcome measures
■ Improvements in perception of ability to sit, stand, kneel, walk
■ Improvements in balance confidence and fear of falling

Target Audience

The original OEP demonstrated the greatest effectiveness with adults age 60 and older. For the US dissemination, the program was shown to be effective in adults age 65 and older who had a history of falls or were identified at an increased risk for a fall by the STEEP tool. The program is not appropriate for older adults who screen at low risk for falls or who have the strength and endurance to participate in a community-based Tai Chi class.

Participation Requirements

■ Attend a minimum of 5 sessions over 8 weeks with a provider of the OEP. The first session is to introduce the participant to their exercise plan. The remaining sessions are to have the participant perform their exercise program either on their own or part of a class and to progress the intensity and challenge of the participant’s program.
■ Sessions can be one-on-one or in a group setting.
■ The sessions must be conducted by a PT, a PTA, or by a community provider with expertise in older adult exercise instruction.
■ If sessions are conducted by a community provider, it is strongly recommended to establish a relationship with a PT to provide consultation services as needed.
■ Complete their OEP plan up to 30 minutes/day, three days/week.
■ Complete their walking program up to 30 minutes/day, three days/week.
US Modifications

- Implement in the home, outpatient clinic, or community setting
- Participants can exercise on their own, in a class, or using online applications, videos, or virtual programs
- Participants can use a variety of tools to track participation rates and progress
Example of Virtual OEP

- Large screen TV, Kinect Camera, computer, internet access, VERA software to deliver virtual OEP
- Sessions designed to provide optimal dose and intensity of exercises for 30 minutes, three times a week
- Automatic tracking of session attendance
- High adherence rates
- High self-efficacy around independent use of program
- High satisfaction rates
US Modifications

• Delivered by a PT or a Physical Therapy Assistant (PTA) and reimbursed by Medicare as long as the participant meets the requirements for physical therapy under Medicare Part A, B, or C
• Required 8 week participation with a recommendation of a minimum of 6 months
• Delivered by a community-based organization (by an individual with an exercise background and experience working with older adults)
### The OEP Experience

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Participation Requirements

- Attend approximately 5 sessions over 8 weeks
- Complete their OEP plan up to 30 minutes/day, three days/week
- Complete their walking program up to 30 minutes/day, three days/week
- Recommended 6 month participation or transition to a more challenging community-based program
Fidelity Mantra

- DO THE EXERCISES
- DO NOT MODIFY EXERCISES
Fidelity

• Meeting with the participant five times over the first eight weeks of the program, in either one-on-one or group sessions
• Insuring the participant is challenged throughout the program
• Insuring the participant has access to ankle weights
• Supporting participant adherence and compliance
“R” 80 Year Old OEP Participant:

“During these 8 weeks I have felt myself get stronger, more confident, more knowledge about how balance of the body works. I love my muscles! I have had more energy during these weeks of work (and this program is work!).”
The Maryland Experience

Home Health Agency

Delivering OEP
Home Health Model

- Implementation
  - Partnership with Home Health Agency

- Training
  - Physical therapists and physical therapist assistants

- Format
  - Otago embedded within the plan of care

- Reimbursement

Otago Exercise Programme
to prevent falls in older adults

Otago
di Esercizi per Forza ed Equilibrio
PT – Community Partnerships

Lessons Learned

• Administering Otago: the Home Health Model
• Back to the ‘grass roots’ of Otago
• The PT/PTA Partnership

Implementation

• What you can do to replicate this model…
• Enthusiasm, Marketing… and Weights!
New Frontiers in Otago

- Student Involvement
- Training
- Group Otago at Senior Centers
- Academic Partnerships with Health Programs
Community-Delivered OEP

The Oregon Experience
AAA delivering the OEP with a PT Consultant

The Oregon Experience

- Northwest Senior & Disability Services serves 5 counties, 4 of which are distinctly rural
- Offered Evidence-Based Group Exercise Programs; found many homebound clients not participating
- Needed a home-based program to reduce falls among people who qualify as a moderate to high fall risk
Community Model

- State Health Authority (OHA) received a 3 year fall prevention grant and helped with startup
- AAA promoted program and received referral; employed COTA & Admin Support
- PT consultant employed by PT agency who does the billing for her work
- Certified Personal Trainers employed by the city’s Senior Center
Numbers

- August 2015 – Program Inception
- > 700 – Referrals to date
- 110 – Number of clients at any given time
Evolution of Model

• Year 1:
  o COTA and exercise physiologist delivered OEP with PT consult; 2 counties
  o Referrals: MOW drivers, AAA CMs, and Options counselors. 250+ referrals

• Year 2:
  o PT initial and 30 day evaluation; exercise physiologist delivers OEP; COTA does intake. 3 total counties
  o Referrals: PCP offices, CMs, Options counselors. 400+ referrals

• Year 3:
  o Expanded to 2 additional rural counties (5 Total)
  o PT consult via phone for one county
  o Exercises delivered in the home by Personal Trainers
  o Referrals: PCP offices and LTC CMs, Options counselors
Payment

- PT services billed under Medicare Part B
- HCPC codes for initial evaluation, 30-day goal status, and discharge
- If PT resources limited, PT does initial evaluation and/or weekly consult
- Currently, all other costs (use of personal trainer and service coordination) covered using OAA dollars and other grant funds
Payment

- Negotiating with State to use State Medicaid $ for non-therapist
- Investigating applying Chronic Care Management codes
- Approaching CCO’s (Medicaid waiver) with plan specific data and ROI with the “ask” that they pay for their population
• In Oregon in 2014, the leading causes of non-fatal injury was **Unintentional Falls**
• Rates increased with age; the highest rate among persons 85 years of age and older (3,794.3 per 100,000)
• Average cost of fall-related hospitalization is **>$30,000 in Oregon**
• ROI can be as high as **40:1**
Lessons Learned

- Best referrals come from those in contact with seniors on a daily basis; e.g. MOW drivers
- Embedding referrals into a clinic’s EHR results in significant increases
- Out of the box thinking can pay off, provided you were closely with your regulators
Implementation Checklist

• Available direct service staff
• Start up funds to cover development costs and Medicare copays
• Access to referral source(s)
• Administrative support
• Close working relationship with State regulators
  – Partners in planning process
  – Support modifications to the implementation model
Resources

Strength Exercise Videos

Available to view and download

- Knee Extensor
  - Front Knee Strength
- Knee Flexor
  - Back Knee Strength
- Hip Adductor
  - Side Hip Strength
- Calf Raises
- Toe Raises

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Tracking Outcomes

• Otago Exercise Program Database
  – [https://apps.hpdhp.unc.edu/ACL/security/login](https://apps.hpdhp.unc.edu/ACL/security/login)

• Available for anyone who wants to track program outcomes

• Data available at agency and state level
Resources

- OEP implementors are required to complete the Otago Exercise Program Online Training at http://www.med.unc.edu/aging/cgec/exercise-program (cost $35).
- Other information about training, resources, and marketing materials is available at http://www.med.unc.edu/aging/cgec/exercise-program.
- OEP Database https://apps.hpdp.unc.edu/ACL/security/login
Thank you

• Tiffany Shubert
tiffany@shubertconsulting.net
• Lavinia Goto
lavinia.goto@nwsds.org
• Dennis Klima
dwklima@umes.edu
Otago Exercise Program

Questions?