

Participants in the Otago Exercise Program Online training can use this justification to submit for CEU credit in their home states.

1.) Learning Objectives:

- Discuss the role of Evidence-Based programs in physical therapy practice
- Explain the rationale behind the Otago Exercise Program
- Integrate Otago into your practice
- Understand the differences between Otago and other evidence-based programs and standard PT practice
- Assess your patients & tailor Otago to individual's physical capacity & health
- Monitor the program & provide appropriate advice and exercise progression based on your patient's responses to the exercises
- Understand potential reimbursement models
- Learn techniques to provide support & motivation
- Understand and evaluate the fidelity of Otago implementation

2.) Presenter's Qualifications

Tiffany Shubert, PhD, MPT

University of North Carolina at Chapel Hill

Center for Aging and Health

tshubert@med.unc.edu

Dr. Tiffany E. Shubert is a Research Scientist at the UNC Center for Aging and Health and an Adjunct Assistant Professor in the UNC Division of Physical Therapy. Dr. Shubert received a BA in Communication at the University of California at San Diego, a Master's of Physical Therapy from the University of California at San Francisco, and her Ph.D. from the Curriculum in Human Movement Science at UNC Chapel Hill. Dr. Shubert's research is focused on identifying factors that contribute to healthy aging, falls prevention, and developing multi-disciplinary community based interventions to create a continuum of care for older adults. Dr. Shubert was the team lead for a project to develop, implement, and evaluate an evidence-based balance improvement program delivered at senior centers by physical therapists in collaboration with fitness professionals. She is currently funded through a Center for Geriatrics Education grant to develop and disseminate best practice falls prevention for clinicians across the continuum of care and is a technical advisor for the Centers for Disease Control on the implementation of the Otago Exercise Program. Her other area of interest is the use of technology as an adjunct to therapy to insure adherence and compliance to exercise protocols and has consulted with large and small gaming companies on the development of health and wellness products.

Terry Shea, PT, GCS, NCS Physical Therapist

University of Wisconsin Hospital & Clinics

TShea@uwhealth.org

Ms. Shea is a physical therapist in outpatient Neuro-Rehabilitation at the University of Wisconsin Hospital & Clinics. She specializes in vestibular and balance rehabilitation and is a member of the multidisciplinary Falls Clinic team at UWHC Geriatrics Clinics. She is adjunct faculty for the Physical Therapy program at University of Wisconsin, Madison. She is APTA board certified in Geriatrics and Neurology. She is a member of APTA Geriatrics and Neurology sections, member of the Wisconsin Falls Initiative and a member of the Dane County Falls Prevention Task Force. She is a consultant for Centers for Disease Control, Administration on Aging and National Council on Aging on fall prevention programs and health care policies. She is involved in older adult fall prevention research at the state and national levels. She has journal publications about vestibular rehabilitation and older adult fall prevention.

Cristine B. Clarke, Ed.D

Carolina Geriatric Education Center

Cristine_clarke@med.unc.edu

Cristine Clarke, Ed. D. coordinates all aspects of the CGEC program and acts as the primary liaison to the AHEC programs. Dr. Clarke also works in program development and data management. Prior to finding her niche at The University of North Carolina at Chapel Hill, Dr. Clarke enjoyed a 10-year teaching tenure at The North Carolina School of Science and Mathematics. Dr. Clarke taught Honors Psychology and a course in ethical thinking via interactive compressed video to High School students across the state of North Carolina. In 2010 Dr. Clarke was recognized by The United States Distance Learning Association (USDLA) as the Gold level recipient for excellence in online teaching.

Dr. Clarke holds a doctorate in Distance Education and Instructional Design from Nova Southeastern University in Ft. Lauderdale. She started her career in Gerontology at King's College, Wilkes-Barre, PA and received a Masters of Professional Studies in Health Care Administration from The New School for Social Research New York, NY.

Dr. Clarke also has 10 years of experience in the health care arena serving in senior management capacities for federal demonstration projects in managed care and primary care.

Pamela W. Duncan, PhD, PT, FAPTA, FAHA

Professor, Department of Neurology

Director of Transitional Outcomes

Wake Forest Baptist Health

Dr. Duncan is a nationally and internationally renowned physical therapist, epidemiologist and faculty member of Wake Forest University, Winston-Salem, North Carolina. She is currently Professor of Neurology and Director of Transitional Outcomes for Wake Forest Baptist Health in Winston Salem, North Carolina. Her secondary appointments are in the Division of Geriatrics and Gerontology, Division of Public Health Sciences, and the Translational Sciences Institute.

Dr. Duncan's research interests reflect the many contributions she has made to the field of stroke, rehabilitation, and aging. Her current focus is on the implementation of better strategies to improve functional status and reduce hospital admissions thru the development of more integrated care across the continuum. She has been selected by the Centers for Medicare and Medicaid Services (CMS) to its Innovation Advisors Program. Duncan is one of 73 health care and allied health professionals chosen from 920 applications through a competitive process, to lead pioneering work that will test new models of care for those who are covered by Medicare, Medicaid and Children's Health Insurance Program (CHIP).

She is currently funded by the NIH, the American Heart Association, and was an investigator on the Duke Evidence Based Practice Center funded by AHRQ. She is principal investigator of the largest NIH trial in post stroke rehabilitation, The LEAPS trial. The primary results of this trial were published in the May 26, 2011 issue of the New England Journal of Medicine. She serves on numerous advisory panels and most recently was appointed by the NIH director to serve on NIH National Medical Rehabilitation Research Advisory Board. She serves on the external advisory board for the University of Pittsburgh Claude D Pepper Center and has served as an external advisor to the Canadian Stroke Network. She has been an author of evidence based guidelines for post-acute stroke care, physical activity in the elderly, and falls prevention guidelines. She served on the North Carolina Justin Warren Task Force for Stroke Systems of Care as well as the North Carolina Falls Coalition.

Dr. Duncan is a past recipient of numerous awards including the American Physical Therapy Association "Mary McMillan Award," and the National Rehabilitation Hospital "John W. Goldschmidt Award for Excellence in Rehabilitation." In November 2009 she was selected for the American Heart Association Stroke Council Award for her efforts to integrate clinical practice, research, and education for post-acute stroke care.

Teal T. Busted, PT, GCS

Therapy Program Manager

Genesis Rehabilitation Services

Ms. Busted has been serving the field of geriatric Physical Therapy for over 16 years. A graduate of the University of Vermont with a Bachelor's degree in Physical Therapy, Ms. Busted has worked in a variety of settings including rehab hospitals and skilled nursing facilities. Ms. Busted is currently the Therapy Program Manager for a large skilled nursing facility including a short term rehabilitation unit, outpatient clinic and wellness facility with aquatic center. Ms. Busted is a board certified Geriatric Clinical Specialist through the APTA.

Michael McGregor, PT, DPT, CEEAA

Clinical Specialist/Clinical Specialist of Education

Genesis Rehabilitation Services

Michael McGregor, Clinical Specialist and Clinical Specialist of Education with Genesis Rehab Services, received his Master of Physical Therapy from Rutgers University and UMDNJ and his Doctorate of Physical Therapy from Marymount University in 2009. He has over 10 years experience in geriatric physical therapy, including direct treatment and management in skilled nursing facilities, assisted living facilities and in continuing care retirement communities. Mike McGregor's primary duties as clinical specialist include working with employees and program managers to enhance the clinical outcomes of the patients they serve, as well as partnering with universities to place students in long term care settings and provide education on geriatric therapies.

Balance and Falls is an area of practice that Mike is most passionate about. He is a Master Clinician in Dementia Care, a Master Trainer for the nationally recognized Matter of Balance Program, and a member of the NC Falls Coalition. He has been an active facilitator of education in his area for balance and falls as demonstrated by co-chairing the 2nd annual dementia summit, presenting on Falls Management at his state conference and by providing ongoing lectures at local PT/OT programs throughout the state of NC. Additionally, he serves as the North Carolina section advocate for the Geriatrics Section of the American Physical Therapy Association.

Jennifer Martin, PT, MS, DPT

Neuromuscular Program Developer

Advanced Home Care

Jennifer Martin, PT, MS, DPT, is the Director of Neuro Programs for Advanced Home Care in High Point, NC, where she leads the development and implementation of comprehensive, evidence-based stroke care and balance and fall risk management programs. She completed her undergraduate work at the University of North Carolina in 1994, and in 2005 was concurrently

awarded her Master of Science in Exercise Science and Doctor of Physical Therapy from the University of South Carolina. Jennifer's experience in both acute care and home health venues gives her a broad perspective on patient care across the health care continuum. She actively collaborates with area health care organizations and community partners to support transitional patient care from one venue to the next. She has presented on innovative, evidence based care models to the NC Physical Therapy Association, the NC Falls Prevention Coalition, and the Guilford County Falls Prevention Coalition.

Jennifer is very active in state and regional organizations, and serves as the Education Director-at-Large for the North Carolina Physical Therapy Association, is an active clinical board member of the Carolinas Clinical Education Consortium and leads that group's Clinical Faculty Advisory Board. She has been recognized by her peers as Clinical Educator of the Year, Outstanding Clinical Faculty, and was nominated by both the NCPTA and the APTA to attend the APTA's Innovation Summit in 2013.

3.) **Bibliography:**

Campbell, A.J. and Robertson, M.C. Otago exercise programme to prevent falls in older adults. http://www.acc.co.nz/PRD_EXT_CSMP/groups/external_providers/documents/publications_promotion/prd_ctrb118334.pdf Accessed October 1, 2010.

Centers for Disease Control and Prevention. About CDC's injury center. <http://www.cdc.gov/injury/about/index.html> Accessed August 2, 2011.

Hausdorff, J.M., Rios, D.A., and Edelberg, H.K., Gait variability and fall risk in community-living older adults: a 1-year prospective study. *Archives of Physical Medicine and Rehabilitation*, 2001. 82: p. 1050-1056.

Hornbrook, M.C., et al., Preventing falls among community-dwelling older persons: results from a randomized trial. *The Gerontologist*, 1994. 34(1): p. 16-23.

Centers for Disease Control and Prevention. U.S. fall prevention programs for seniors. <http://www.cdc.gov/ncipc/falls/fallprev.pdf> Accessed December 12, 2010.

Centers for Disease Control and Prevention. Costs of falls among older adults. <http://www.cdc.gov/HomeandRecreationalSafety/Falls/fallcost.html> Accessed December 12, 2010.

U.S. Congress, U.S. Senate. Designating September 23, 2010 as "National Falls Prevention Awareness Day" to raise awareness and encourage the prevention of falls among older adults, 111th Congress, 2nd Sess., S. Res. 633, *Congressional Record* 2010 Sep 21; S7299-300.

Wu, S., Keeler, E.B., Rubenstein, L.Z., Maglione, M.A., and Shekelle, P.G., A cost-effectiveness analysis of a proposed national falls prevention program. *Clinics in Geriatric Medicine*, 2010. 26: p. 751-766.

Sherrington, C., et al., Effective exercise for the prevention of falls: a systematic review and meta-analysis. *Journal of the American Geriatrics Society*, 2008. 56(12): p. 2234-2243.

Carande-Kulis, V.G., Stevens, J., Beattie, B.L., and Arias, I., The business case for interventions to prevent fall injuries in older adults. *Injury Prevention*, 2010. 16: p. A249-A249. 89

Macfarlane, D.J., Chou, K.L., Cheng, Y.H., and Chi, I., Validity and normative data for thirty-second stand test in elderly community-dwelling Hong Kong Chinese. *American Journal Of Human Biology*, 2006. 18(3): p. 418-421.

Rossiter-Fomoff, J.E., Wolf, S.L., and Wolfson, L.I., A cross-sectional validation study of the FICSIT common data base static balance measures - Frailty and Injuries: Cooperative Studies of Intervention Techniques. 1995. 50: p. M291-M297.

Scott, V., Votova, K., Scanlan, A., and Close, J., Multifactorial and functional mobility assessment tools for fall risk among older adults in community, home-support, long-term and acute care settings. *Age And Ageing*, 2007. 36(2): p. 130-139.

Herman, T., Giladi, N., and Hausdorff, J.M., Properties of the 'Timed Up and Go' test: more than meets the eye. *Gerontology*, 2011. 57(3): p. 203-210.

Podsiadlo, D. and Richardson, S., The Timed 'Up & Go': a test of basic functional mobility for frail elderly persons. *American Geriatrics Society*, 1991. 39(2): p. 142-148.

Viccaro, L.J., Perera, S., and Studenski, S.A., Is Timed Up and Go better than gait speed in predicting health, function, and falls in older adults? *Journal of the American Geriatrics Society*, 2011. 59(5): p. 887-892.

Gillespie, L.D., et al., Interventions for preventing falls in elderly people. *Cochrane Database Of Systematic Reviews (Online)*, 2001(3): p. CD000340.

Centers for Medicare and Medicaid Services. Medicare benefit policy manual: chapter 7. <https://www.cms.gov/manuals/Downloads/bp102c07.pdf> Accessed December 12, 2010.

Centers for Medicare and Medicaid Services. Overview of therapy services. <http://www.cms.gov/therapyservices/> Accessed December 12, 2010.

Centers for Medicare and Medicaid Services. Covered medical and other health services. <http://www.cms.gov/manuals/Downloads/bp102c15.pdf> Accessed July 5, 2011.

Robertson, M.C., Campbell, A.J., Gardner, M.M., and Devlin, N., Preventing injuries in older people by preventing falls: a meta-analysis of individual-level data. *Journal of the American Geriatrics Society*, 2002. 50(5): p. 905-911.

Centers for Disease Control and Prevention. Falls among older adults: an overview. <http://www.cdc.gov/HomeandRecreationalSafety/Falls/adultfalls.html> Accessed March 8, 2011.

American Physical Therapy Association. Guidelines: physical therapy documentation of patient/client management. http://www.apta.org/uploadedFiles/APTAorg/About_Us/Policies/BOD/Practice/Documentation/PatientClientMgmt.pdf#search=%22guidelines Accessed December 22, 2010. 90

Rikli, R.E. and Jones, C.J., Functional fitness normative scores for community-residing older adults, ages 60-94. *Journal of Aging and Physical Activity*, 1999. 7(2): p. 162-181.

Hamel, G. What are the benefits of wearing ankle weights?
http://www.ehow.com/about_5071095_benefits-wearing-ankle-weights.html Accessed December 15, 2010.

Additional Resources

The National Council on Aging publication, *Partnering to Promote Health Aging: Creative Best Practice Community Partnerships*

www.healthyagingprograms.org/content.asp?sectionid=92&ElementID=160

-This manual describes ways to build partnerships at the state and local level between aging services, community health, and public health services that promote healthy aging.

Falls Free: A National Falls Prevention Action Plan, *National Falls Prevention Action Plan*

<http://www.healthyagingprograms.org/content.asp?sectionid=69&ElementID=220>

– A collaboration between The National Council on the Aging (NCOA), the Archstone Foundation and the Home Safety Council that describes specific goals and strategies to reduce falls among older adults to maximize their quality of life and independence.

California Blueprint For Falls Prevention, *Preventing Falls in Older Californians: State of the Art*

www.archstone.org/publications2292/publications_show.htm?doc_id=246660

– This a white paper that describes state-of-the-art approaches to reduce the falls risk. It highlights the challenges of implementing fall prevention programs in California. The intent of the white paper and accompanying documents is to provide the building blocks for a long-term collaborative effort to reduce falls among California's older population.

Queensland, Australia Statewide Action Plan: *Falls Prevention in Older People 2002–2006*

<http://www.health.qld.gov.au/stayonyourfeet/documents/13693.pdf>

– The action plan lays out a five-year framework and coordinated plan on how Queensland, Australia can address falls among older adults. The plan addresses this topic because older adult falls have been identified as a significant risk to health in Queensland.

Washington State Department of Health Report-*Falls Among Older Adults: Strategies for Prevention*

<http://www.doh.wa.gov/hsqa/emstrauma/injury/pubs/FallsAmongOlderAdults.pdf>

– This report includes a discussion about the problem of older adult falls in the State of Washington and provides strategies and best practices for preventing them. It also describes strategies for program evaluation.

Community Toolbox for Public Health Partnerships

<http://ctb.ku.edu/en/default.aspx>

– The Community Toolbox is a free global resource providing information and guidance about essential skills for building healthy communities. The toolbox promotes community health and development by connecting people, ideas, and resources. It was developed and is managed by the Work Group for Community Health and Development at the University of Kansas.

Partnership Self-assessment Tool

<http://partnershiptool.net/>

– This tool was created by the Center for Advancement of Collaborative Strategies in Health and was designed to help partnerships assess how well their collaborative processes are working and to identify specific areas in which to focus to enhance their collaborations.

Centers for Disease Control and Prevention (CDC), National Center for Injury Prevention and Control (NCIPC)

<http://www.cdc.gov/injury/about/index.html>

– NCIPC focuses on preventing injuries and violence and on reducing their consequences. The Division of Unintentional Injury Prevention is a center within NCIPC and is involved in preventing home and recreational injuries, including older adult falls. This site provides information about other CDC-funded fall prevention programs such as *Stepping On*, and *Tai chi: Moving for Better Balance*. The NCIPC site also contains statistics and information about injuries and injury prevention.

Preventing Falls: What Works -A CDC Compendium of Effective Community-based Interventions from Around the World (2010)

<http://www.cdc.gov/HomeandRecreationalSafety/Falls/preventfalls.html#Compendium>

– The compendium was developed to help health practitioners effectively address the problem of older adult falls. It describes fall interventions that have scientific evidence supporting their effectiveness and includes information for practitioners and senior service providers who would like to implement fall prevention programs.

The American Geriatrics Society

<http://www.americangeriatrics.org/>

– The American Geriatrics Society (AGS) is a non-profit organization devoted to improving the health, quality of life, and independence of older adults by implementing and advocating for programs revolving around patient care, public policy, research, and professional and public education. The AGS/British Geriatrics Society Clinical Practice Guideline was developed for clinicians and provides recommendations about how to address older adult falls and fall prevention.

Thomas S, Macintosh, and Halbert J. *Does the 'Otago Exercise Programme' Reduce Mortality and Falls in Older Adults?: A Systematic Review and Meta-analysis*

<http://ageing.oxfordjournals.org/content/39/6/681.abstract>

– Reviewers evaluated the effect of the Otago Exercise Programme (OEP), older adult fall rates and the risk of death, and explored the effect of differing levels of compliance with the program. The authors concluded that the OEP significantly reduced the risk of falling and death among older adults living in the community.

Davis JC, Robertson MC, Ashe MC, Liu-Ambrose T, Khan KM, Marra CA. *Does a home based strength and balance programme in people aged ≥80 years provide the best value for money to prevent falls?: A systematic review of economic analyses of falls prevention interventions*

<http://bjsm.bmj.com/content/early/2009/08/06/bjsm.2009.060988.abstract>

– This review investigated the monetary value of different strategies to prevent falls among community-dwelling older adults through a systematic review of relevant peer-reviewed journal articles. The authors concluded that the best value was single factor interventions such as the Otago Exercise Programme.

Campbell AJ and Robertson MC. *A comprehensive approach to fall prevention on a national level: New Zealand*

<http://www.sciencedirect.com/science/article/pii/S0749069010000522>

– This article includes a discussion about the importance of individual assessment and treatment for older adults who are at high risk of falling and the benefits of fall prevention programs. It also describes two successful New Zealand interventions: 1) the Otago Exercise Programme, and 2) community Tai chi classes.

American Board of Physical Therapy Specialists

<http://www.abpts.org/About/>

– The American Board of Physical Therapy Specialists (ABPTS) oversees the certification and recertification of clinical specialists, including geriatric certified specialists and neurologic certified specialists. This site provides information about the certification process, including eligibility requirements and the application, along

Justification of 3.0 contact hours

Section	Training Time	Activity
Pre-assessment Pre-test	10 minutes	10 items pre-assessment of confidence and integration of fall management into practice 10-item pretest of knowledge base
Otago Exercise Program Introduction	5 minutes	Voice over and slides covering: Course Goal, Course Objectives, Activities, etc.
1.) Background on Falls	15 minutes	Voice over, slides, integrated Videos, Articles to review, Quizzes, Integration and application exercises
2.) Otago Overview	23 minutes	Voice over slides, Videos, Research, Reports, Implementation, Care Plan
3.) Reimbursement Models	8 minutes	Voice over Description of Models, Videos
4.) Starting Otago	10 minutes	Voice over slides, Videos, Assessments, Assessment tools, Quiz assessing application, Review
5.) Otago Home Exercise Plan	37 minutes	Voice over demonstration and description of Home Exercise Plan, Exercise Videos, Defining Fidelity
6.) Designing an Exercise Plan	30 minutes	Video examples of Exercise Plans, Schedule, Monthly Phone Calls, Safety, Sustaining Benefits
7.) Patient Tools	45-60 minutes	Customizable Forms for Patient Use, Additional Resources (Otago Manual, Exercise Program Activity Booklet, Ankle Weights, Walking Tips, Video Downloads)
Final exam and post-test	10 minutes	10 item post-assessment of knowledge base 10-item final exam, pass rate is 80% 10-item post-assessment of mastery of knowledge 10-item survey to determine intention to implement

*Not counting assessments, examination, and evaluation

4.) Copy of Certificate of Completion (User will need to insert here)

5.) Detailed Course Description:

This online course was developed as a means to train physical therapists to integrate the Otago Exercise Program as part of their practice. It is intended to be used in combination with the Otago Exercise Program Manual available as an attachment in this course.

The Centers for Disease Control was a key stakeholder whose efforts led to the development of the program manual and this online training. Terry Shea (University of Wisconsin Hospitals and Clinics) has led the effort to translate Otago for use in the United States. She was instrumental in providing content and expertise for creating this online manual and training.

This project is supported by funds from the Bureau of Health Professions (BHPr), the Health Resources and Services Administration (HRSA), grant #UB4HP19053, Carolina Geriatric Education Center. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by the BHPr, HRSA, or the U.S. Government.

6.) Descriptive Brochure/Web page

Otago Exercise Program: Training for Physical Therapists

[Note: You are already registered for this course]

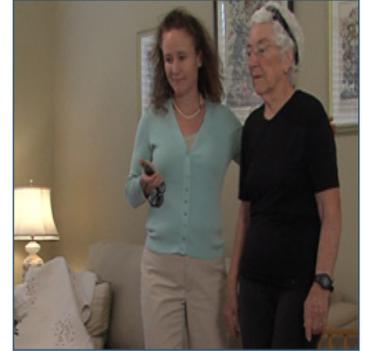
Description:

This online course was developed as a means to train physical therapists to integrate the Otago Exercise Program as part of their practice. It is intended to be used in combination with the Otago Exercise Program Manual available as an attachment in this course.

The Centers for Disease Control was a key stakeholder whose efforts led to the development of the program manual and this online training. Terry Shea (University of Wisconsin Hospitals and Clinics) has led the effort to translate Otago for use in the United States. She was instrumental in providing content and expertise for creating this online manual and training.

This project is supported by funds from the Bureau of Health Professions (BHP), the Health Resources and Services Administration (HRSA), grant #UB4HP19053, Carolina Geriatric Education Center. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by the BHP, HRSA, or the U.S. Government.

If you have questions related to the content of this course, email Otago@med.unc.edu, visit our website at <http://www.med.unc.edu/aging/cgcec/> or call the Carolina Geriatric Education Center (919) 843-6675



OBJECTIVES:

At the conclusion of this web-based instruction about the Otago Exercise Program, you will be fully trained in the Otago Exercise Program and able to

1. Discuss the role of Evidence-Based programs in physical therapy practice
2. Explain the rationale behind the Otago Exercise Program
3. Integrate Otago into your practice
4. Understand the differences between Otago and evidence-based programs and standard PT practice

Author(s):

Terry Shea, PT, GCS, NCS Physical Therapist
University of Wisconsin Hospital & Clinics
TShea@uwhealth.org

Tiffany E. Shubert, MPT, PhD
University of North Carolina at Chapel Hill
Center for Aging and Health
tshubert@med.unc.edu

Cristine B. Clarke, Ed.D
Coordinator
Carolina Geriatric Education Center
Cristine_clarke@med.unc.edu

Pamela W. Duncan, PhD, PT, FAPTA, FAHA
Professor, Department of Neurology
Director of Transitional Outcomes
Wake Forest Baptist Health

Teal T. Busteed, PT, GCS
Therapy Program Manager
Genesis Rehabilitation Services

Michael McGregor, PT, DPT, CEEAA
Clinical Specialist/Clinical Specialist of Education
Genesis Rehabilitation Services

7.) **Assessment**

Pre Evaluation

Before you begin your Carolina Geriatric Education Center sponsored Continuing Education event related to the Otago Exercise Program please indicate by number how you see your current abilities and confidence with your skills. Your honest answers will help us determine if this training has an effect on clinical practice and patient outcomes. Your answers are entirely confidential. Thank you.

5= I am completely confident

4= I have a lot of confidence

3 =I some confidence

2= I have a little confidence

1= I have no confidence

In thinking about the topic or condition you are about to study...

Describe how confident you feel for each item.

		5	4	3	2	1
1	I can describe key risk factors associated with this topic or condition					
2	I can fully assess patients related to this topic or condition					
3	I can determine where my profession's responsibility begins and ends related to this topic or condition					
4	I can accurately use the patient's <i>risk factors</i> to guide interventions					
5	I can accurately use the patient's <i>functional abilities</i> to guide interventions					

6	I can accurately use the patient's <i>cognitive abilities</i> to guide interventions						
7	I can refer my patients to appropriate practitioners						
8	I can describe ways to prevent this condition						
9	I can train others to assess this topic or condition						

In thinking about the topic or condition you are about to study....

		0%	About one quarter	More than a quarter but less than half	About half	More than half but not everybody	100% or almost everybody
10	What percentage of your patients over the age of 65 do you screen for this?						

If you have any questions please call the Carolina Geriatric Education center at 919 843-6675 and reference # _____

Pre-Test

What you need to know about effective fall prevention skills assessment

1. Most older adults are at risk of falling
 - a. True
 - b. False
2. Most older adults are assessed for falls risk by healthcare providers
 - a. True
 - b. False
3. There are effective programs available in the community (senior and wellness centers, etc.) to decrease an older adult's risk of falling
 - a. True
 - b. False
4. The minimum "dose" (total number of hours over a year period) of exercise to achieve a protective effect against falls is
 - a. 10
 - b. 20
 - c. 30
 - d. 40
 - e. 50
5. Circle which functional assessment is the strongest predictor of falls and functional decline
 - a. Walking speed
 - b. Chair rise
 - c. Timed up and go
 - d. Berg Balance Scale
 - e. Dynamic Gait Index
6. Balance is only one component of fall risk, which other factors are linked to increase risk of falling
 - a. Cognitive impairment
 - b. Polypharmacy (too many or wrong kind of medications)
 - c. Decreased leg strength
 - d. Difficulty walking
 - e. All of the above
7. An evidence-based falls risk SCREEN must include the following
 - a. History of falls
 - b. Fear of Falling

- c. Observation of timed up and go
 - d. Assessment of leg strength
 - e. Medication review
8. Physical therapists should assess or screen for the following when evaluating fall risk:
- a. Screen for Polypharmacy (too many or the wrong type of medications)
 - b. Assess for medications that may affect balance or falls
 - c. Vision assessment
 - d. Orthostatic hypotension
 - e. Gait and mobility
 - f. All of the above
9. Walking is a safe and effective intervention to decrease fall risk
- a. True
 - b. False
10. An effective fall prevention program must include the following
- a. Balance exercises, done in standing
 - b. A home exercise program, done in sitting
 - c. Strength training exercises
 - d. Dual task exercises
11. Exercise is one of the most effective interventions for community-dwelling older adults
- a. True
 - b. False

Final Exam

Otago Questionnaire and Final Exam

Instructions:

Please respond to the following questions, which are designed to evaluate your understanding of the Otago Exercise Program, as presented in the Otago Online Training Course.

1. Which patient will be the least likely to benefit from participating in the Otago Exercise Program?
 - 65 year old male with multiple chronic diseases; has fallen three times this year
 - 91 year old male, lives alone, has fallen twice in the past year, has bilateral cataracts
 - 74 year old female; does tai chi daily, able to stand on one leg with eyes closed for 1 minute
 - 80 year old male, lives independently at home, beginning to limit activities due to fear of falling, has experienced one fall this year
2. Which of the following would be a major violation of fidelity to the delivery of Otago?
 - Exercises must be challenging and progressed
 - Delivered over a year
 - Can deliver in 3 visits or less
 - Should be delivered in the home
 - Should not include additional exercises
3. Select the statement which is incorrect for the following:
Evidence-based programs are:
 - Tested in randomized controlled trials.
 - A standard part of physical therapy practice
 - Recognized by national organizations like the National Council on Aging or the Centers for Disease Control.
 - Scripted and standardized.
 - Specific to individuals who met a set of criteria.
4. Which of the following exercise programs is not effective for falls prevention?
 - A home exercise program with balance and strength exercises lasting 50 hours or more
 - A gym program of progressive, challenging balance exercises.
 - A chair exercise program
 - A walking program for older adults who are at high risk of falls
5. Which sentence that best distinguishes between a falls risk screen and an assessment?
 - They are both the same thing

- A screen tells us who is at risk
 - An assessment is more detailed and tells us exactly what the underlying problem is
 - An assessment is a second way to validate there is a risk so we know the people who are assessed are really at risk
 - An assessment can be done by lay professionals and costs a lot less
6. Which of the following tools are used to screen for falls risk?
- The Berg Balance Scale
 - The Dynamic Gait Index
 - The Performance Oriented Mobility Assessment
 - The 30 Second Chair Stand
 - Manual muscle testing
7. True or False: If the patient is at high risk of falls, walking should be started on Day 1 of Otago.
8. A patient is unable to hold the full tandem position for 10 seconds. What do you do next?
- Record the maximum amount of time the patient can hold the full tandem, then ask them to stand on one leg
 - Re-assess their ability to hold the semi-tandem position
 - Record the maximum amount of time the patient can hold the full tandem, categorize them at low fall risk and then move on to the next assessment
 - Record the maximum amount of time the patient can hold the full tandem, categorize them at high fall risk and then move on to the next assessment
9. An 85 year-old man can do seven chair rises in 30 seconds. How would you categorize his risk?
- Wow, that is more chair rises than I can do! He is at *low risk*
 - He needs to be able to do > 8 in 30 seconds. He has lower extremity weakness and is at *high risk*.
 - He needs to be able to do > 15 in 30 seconds. He is at *high risk*.
 - He needs to be able to do < 5 in 30 seconds. He has good strength and is at *low risk*.
10. Your patient has just completed their last Otago visit. They are exercising 3 times a week and are able to tandem walk backwards without hands. Your discharge plans include:
- Telling the patient they have met all goals and are done with therapy.
 - Telling the patient they have met all goals but should continue with an exercise program.
 - Telling the patient they have met all goals. Discussing the importance of exercise to maintain or improve progress. Finding out what resources are available in the community and discharging the patient to a tai chi class at the local senior center.

- Telling the patient they have met all goals. Discussing the importance of exercise to maintain or improve progress. Finding out what resources are available in the community and discharging the patient to a tai chi class at the local senior center. Calling the patient in 2 weeks to insure they are attending the class, they like the class, they foresee no barriers to participating and they will contact you if they need a different option.

Thank you!

Intention to Implement Survey

1. How would you characterize the time you spend in direct patient care?

- Full time Part time not currently seeing patients

2. How many years have you been in practice?

- 1 2 3 4 5 6 7 8 9 10+

3. What is your average number of patient visits per week?

- 0-9
— 10-19
— 20-39
— 40 or more

4 How many years have you worked with older adults (e.g., 65 years and older)?

4. 1 2 3 4 5 6 7 8 9 10+

5. What % of your case load is age 65 or older?

- <25
— 25-49
— 50-74
— 75>

6. We would like to know the extent to which Otago will be integrated into physical therapy practice. Now that you have completed this training, how do you intend to use Otago?

- No plans to implement Otago this year and will not take any action
— Have thought Otago may be a good fit but taken no action
— Have discussed a plan to implement Otago but not yet implemented
— Have a concrete plan to implement Otago
— Currently implementing Otago

7. Other than Otago, Have you ever referred your patients to an evidence-based falls prevention program?

Yes

No

I don't know

If **YES**, please select the Evidence-Based Program(s) you have referred to

- Matter of Balance
- Stepping On
- Tai chi
- Other _____

8. Other than Otago, have you ever been trained to deliver an evidence-based falls prevention program?

Yes

No

I don't know

If **YES**, please select the Evidence-Based Program(s) you have been trained to deliver

- Matter of Balance
- Stepping On
- Tai chi
- Chronic Disease Self-Management Program
- Arthritis Foundation Program
- Walk With Ease
- Enhanced Fitness
- Diabetes Self-Management
- Other _____

9. In your organization, are you the primary physical therapist charged with helping your organization implement Otago?

— Yes

— No

__Share this role with another PT

— Comments

10. Now that you have completed this training, how likely is it that you will encourage other physical therapists to take this training?

- Very likely
- Somewhat likely
- Likely
- Not Likely
- Not at all

11. Are you currently receiving any referrals for the Otago Exercise Program
- No, I am not receiving referrals for Otago
 - If Yes, please indicate where your referrals are coming from
 1. Physicians _ Yes _ No
 2. Other Health Providers _ Yes _ No
 3. Other Community Providers _ Yes _ No
 4. Patients or family members _ Yes _ No
 5. Other (please describe):_____

12. Please estimate the degree to which each of the following items will *facilitate* your ability to implement Otago. Please place an "X" in the appropriate box.

	Not At All	Somewhat	A Lot
a. I have active support from my Agency's administration			
b. I have an internal "champion" or key leader who is supportive of Otago			
c. My agency has enough staff member, skills, resources to support the work and phone calls			
d. My agency is/will be able to modify reimbursement and billing practices to fit Otago guidelines			
e. The program is low cost; and does not need substantial resources to continue			
f. The research data helped convince my Agency of the value			
g. The research data helped convince referral partners (MDs, ACOs) of value			
h. The research data and program structure helped convince me of the value			
i. My patients like the program			
j. The program is supported by community and state-based fall coalitions			
k. I am able to bill as a Part B provider			

Please list any additional anticipated facilitators to program delivery:_____

1. Please estimate the degree to which each of the following items will be a *barrier* to your ability to implement Otago. Please place an "X" in the appropriate box.

	Not At All	Somewhat	A Lot
a. My agency does not have reimbursement or billing policies in place			

b. Current Medicare reimbursement practices do not support delivery of the program			
c. Poor patient compliance			
d. My agency is not set up keep patients on caseload over an extended period of time			
e. My agency does not have a system for follow up phone calls			
f. It is difficult to get weights for patients			
g. Patients will not continue with a different Part B provider			
h. Patients unable or do not want to pay co-pays			
i. Medicare C payors will not cover Otago			
j. No way to transition patient from home health to Part B			
k. Agency does not have enough trained staff members, skills, resources) to support the work			
l. Agency leadership does not support the work.			
m. Turnover among therapists implementing Otago			
n. Other barriers (please specify)			

Is there anything more you would like to tell us about your Otago training experience?

Thank you for your time!

Please email Otago@med.unc.edu if you have any questions about this survey.

Post Evaluation

Now that you have completed your Carolina Geriatric Education Center sponsored Continuing Education event related to the Otago Exercise Program please indicate by number how you ***NOW*** see your abilities and confidence with your skills. Your honest answers will help us determine if this training has an effect on clinical practice and patient outcomes. Your answers are entirely confidential. Thank you.

5= I am completely confident

4= I have a lot of confidence

3 =I some confidence

2= I have a little confidence

1= I have no confidence

In thinking about the topic or condition you have just completed your study of...

		5	4	3	2	1
1	I can describe key risk factors associated with this topic or condition					
2	I can fully assess patients related to this topic or condition					
3	I can determine where my profession's responsibility begins and ends related to this topic or condition					
4	I can accurately use the patient's <i>risk factors</i> to guide interventions					
5	I can accurately use the patient's <i>functional abilities</i> to guide interventions					
6	I can accurately use the patient's <i>cognitive abilities</i> to guide interventions					

7	I can refer my patients to appropriate practitioners					
8	I can describe ways to prevent this condition					
9	I can train others to assess this topic or condition					

In thinking about the topic or condition you have just studied....

		0%	About one quarter	More than a quarter but less than half	About half	More than half but not everybody	100% or almost everybody
10	What percentage of your patients over the age of 65 do you NOW plan to screen for this?						

This is the most important question.....

1. List **ALL NEW** strategies you plan on implementing with your patients related to this topic or condition

If you have any questions please call the Carolina Geriatric Education center at 919 843-6675 and reference # _____