

Summary of Recommendations

The original purpose of this capstone project was to examine the implementation of falls prevention procedures, from initial patient encounter and referral to the completion of the Otago Exercise Program, in the UNC Family Medicine Center (FMC), and UPT clinics in Durham and Hillsborough. The majority of the capstone would focus on determining how UPT physical therapists use the Otago Exercise Program (OEP), and brainstorming ideas on how to optimize this use. This summary of recommendations represents an overview of a variety of ideas that could be put into place to improve the consistency, frequency, and quality with which the OEP is used in UNC outpatient clinics as a falls prevention intervention for community-dwelling older adults. These recommendations are based on interviews with current UNC physical therapists and on evidence drawn from the evidence table posted on the main page of this capstone project and will be disseminated to clinicians like Vicki Mercer for future use.

- 1) At an appropriate time, follow up with the Certified Medical Assistants (CMAs) at the UNC FMC regarding corrected Timed Up & Go (TUG) instructions and Falls Risk Flyer forms.
 - a. These forms may be found in the health literacy document.
 - b. Several of the PTs interviewed for this capstone commented that they have noticed an increase in the number of patients referred to PT services for balance concerns and/or with instructions to “consider Otago” over the last few years.
 - c. Maintaining a high level of quality with UNC CMA screening procedures, which primarily involve use of the TUG, is therefore important in the process of preventing falls among UNC PT patients
 - d. The most recent updates to these forms were completed in mid-March of 2020, their delivery to the FMC will need to be done electronically or at another time due to the ongoing Coronavirus pandemic.

- 2) Determine the best means of more easily connecting patients to video examples of their prescribed OEP exercises.
 - a. There are several resources already available which provide visual examples of OEP exercises and may help older adults perform their exercises with greater accuracy.
 - b. The Carolina Geriatric Education Center has exercise examples arranged in groups like Warm Up, Strength, and Balance Exercises
 - i. <https://www.med.unc.edu/aging/cgec/exercise-program/videos/>
 - c. Dr. Tiffany Shubert, a UNC Physical Therapy Adjunct Associate Professor, has produced a YouTube video with examples of Otago Exercise Program Exercises
 - i. Video Title: “NEW! OTAGO Evidence-based Falls Prevention Exercise Program”
 - ii. https://m.youtube.com/watch?v=RmZO_EPoB4k
 - d. There are also examples of exercise video and even exercise tracking tools outside of the existing UNC options, including Health in Motion, an app produced by Blue Marble Health

- i. This option allows users to input their exercise routine, track their completion, and comes with video examples of each exercise.
 - ii. A year of access to this service costs \$99 and this service has specific computer hardware requirements, either of which may prove to be prohibitively expensive for many older adults. For older adults who are motivated to improve their balance and reduce their risk for falls, and have additional resources at their disposal, this service represents a potential means of enhancing their use of the OEP.
 - iii. <http://preventamillionfalls.com/>
- 3) Improve PT-patient communications to boost remote check-ins during OEP use
 - a. There is evidence that one efficacious aspect of the OEP as a home-based intervention is the regular phone calls PTs use to check in on patients, assess their progress, and troubleshoot any issues they may be having in between in-person sessions.¹ In the original OEP studies, PTs made monthly phone calls following the first four in-clinic visits, outside of months 6 and 12, when patients returned to the clinic.³ In current UNC implementation, calls occur at months 3 and 4 of the 5-month program.
 - b. More than one PT interviewed for this project stated that this specific aspect of the OEP is challenging because, at their locations, there is inconsistent or no coverage of the office phone by support staff and, as faculty members at UNC's PT program, they are not full-time clinicians. This combination of factors means that if a PT is unable to reach a patient while they are in the clinic, they may not be able to complete phone calls at all or end up in a back-and-forth series of missed calls.
 - c. Working around challenges that are baked-in to the clinical structure at a clinic like the FMC, which does not have support staff, is particularly difficult in this regard. At UPT Hillsborough, at least, messages may be taken for PTs, though the challenge of PTs not being full-time in the clinic remains. Potential solutions to this problem are to encourage MyChart use for asynchronous communication between provider and patient, and to incorporate scheduled phone calls for mutually convenient times into the OEP use at UNC outpatient PT clinics. Adding additional phone calls to the designed use of the program, *which might one day improve the patient experience with the program*, would not be helpful until the current barriers to consistent PT-patient communication outside the clinic are addressed.
- 4) Host an inservice to re-educate PTs on the use of the OEP
 - a. Three of the four PTs interviewed for this capstone stated that they have become unfamiliar with the use of the OEP in part due to limited ongoing exposure to the program. UPT clinicians often operate with little to no other PTs in the building – at the FMC this is because the PT department consists of a small single room. One clinician interviewed highlighted this as a challenge to implementing the OEP because he doesn't see it in action or hear of it in use and has fallen out of practice accordingly.

- b. An inservice presentation at a UNC PT staff meeting could serve the purpose of re-introducing key aspects of the OEP, such as maintaining the supplies of OEP materials in the clinic (ankle weights, patient binders, lists of patients who have completed the program, and exercise printouts). PTs could also share their experiences with implementing the OEP and discuss the types of patients who would be most appropriate for its use, including patients in need of a reasonably challenging home-based intervention and who are adequately self-motivated to maximize the utility of such a home-based program.³
 - c. As with delivering new materials to the FMC CMAs, a staff meeting of UNC PTs or an inservice presentation to reboot use of the OEP at an outpatient level presents as a challenge at this time. One proposed solution to this problem is to have a current second year student take up this element of the OEP in the fall as part of an independent study, for example.
- 5) Maintain an Otago Exercise Program “Instructions Summary” at UNC PT clinics
- a. This capstone’s committee chair Vicki Mercer suggested a potential second solution to the issue of PTs falling out of practice with the OEP: maintain permanent, laminated summary of OEP instructions at each PT clinic.
 - b. This simple, one-page reminder could be kept alongside the necessary materials for using the OEP such that, if a PT wanted to brush up on the OEP, they could use the summary as a quick reference for everything from outcome measure selection and important pieces to remember while gathering OEP materials, to EPIC smartphrases for documentation.
 - c. This form may be found in the health literacy document.

References

1. Light K, Bishop M, Wright T. Telephone Calls Make a Difference in Home Balance Training Outcomes: A Randomized Trial. *Journal of Geriatric Physical Therapy*. 2016;(39)3: 97-101. doi: 10.1519/JPT.0000000000000069
2. Shubert T, Smith M, Jiang L, Ory M. Disseminating the Otago Exercise Program in the United States: Perceived and Actual Physical Performance Improvements From Participants. *Journal of Applied Gerontology*. 2018(37)1: 79–98. <https://doi.org/10.1177/0733464816675422>
3. Essery R, Geraghty A, Kirby S, Yardley L. Predictors of adherence to home-based physical therapies: a systematic review, *Disability and Rehabilitation*. 2017;(39)6: 519-534, DOI: [10.3109/09638288.2016.1153160](https://doi.org/10.3109/09638288.2016.1153160)